ORDER NO.VMD0009023C8

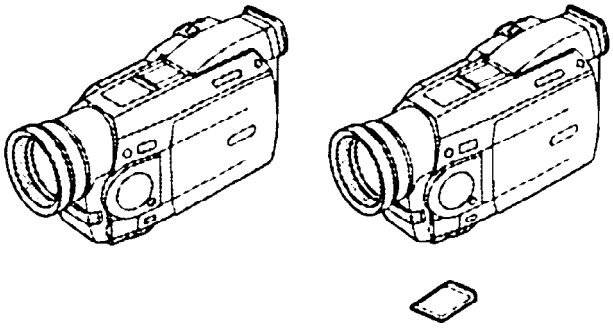
Digital Video Camera/Recorder

Panasonic Mini DV PAL MultiMediaCard™ SD

NV-MX1EG / NV-MX1EGM / NV-MX1B / NV-MX3EN / NV-MX3A / NV-MX5EG / NV-MX5EGM / NV-MX5B / NV-MX7EG / NV-MX7EGM / NV-MX7B / NV-MX7DEN / NV-MX7A

VOL.1

Q3-MECHANISM



NV-MX1
NV-MX3

NV-MX5
NV-MX7

SPECIFICATIONS

SPECIFICATIONS

ITEM	SPECIFICATION
POWER	Source: Battery Pack; 7.2 V DC AC Adaptor; 7.9 V DC Consumption: During Camera Recording Using The LCD Monitor; 5.0 W (NV-MX1) ; 5.2 W (NV-MX3, NV-MX5, NV-MX7) During Camera Recording Using The Viewfinder ; 4.1 W (NV-MX1) ; 4.2 W (NV-MX3, NV-MX5, NV-MX7)
RECORDING FORMAT	Digital Video SD Format
TAPE FORMAT	Mini DV Cassette Tape (Tape width 6.35 mm)
TAPE SPEED	SP mode : 18.83 mm/s LP mode : 12.57 mm/s Record/Playback Time: SP mode ; 80 min. with DVM80 LP mode ; 120 min. with DVM80
CAMERA	PICK-UP ELEMENT: CCD (Charge Coupled Device)
	STANDARD ILLUMINATION: 1,400 lx
	MINIMUM REQUIRED ILLUMINATION: 1 lx (Digital Gain-up Mode)
	LENS: 10 : 1 Power Zoom, Auto Iris, F1.8, Macro (Full Range AF) Focal Length; 3.55-35.5 mm Filter Diameter; 37.0 mm
	IMAGE SENSOR: 1/4-inch CCD Image Sensor
	VIEWFINDER: Colour Electronic Viewfinder 2.5-inch Colour LCD Monitor (NV MX1, NV MX3) 3.0-inch Colour LCD Monitor (NV-MX5, NV-MX7)
VIDEO	RECORDING FORMAT: Digital Component
	TELEVISION SYSTEM: CCIR; 625 Lines, 50 Fields PAL Colour Signal
	VIDEO OUTPUT LEVEL: 1.0 Vp-p, 75Ω S-VIDEO OUTPUT LEVEL: Y; 1.0 Vp-p, 75Ω C; 0.3 Vp-p, 75Ω VIDEO INPUT LEVEL: 1.0 Vp-p, 75Ω (NV-MX7) S-VIDEO INPUT LEVEL: Y; 1.0 Vp-p, 75Ω C; 0.3 Vp-p, 75Ω (NV-MX7)
Card Memory Functions (NV-MX5, NV-MX7)	Recording Media: MultimediaCard, SD Memory Card Image Compression: JPEG

ITEM	SPECIFICATION
AUDIO	RECORDING FORMAT: PCM Digital Recording, 16 bit (48 kHz/2 ch) 12 bit (32 kHz/4 ch)
	MIC IN LEVEL: -50 dBV (0 dB=1V/Pa 1kHz) (Stereo mini jack) OUTPUT LEVEL: 316 mV, 600Ω INPUT LEVEL (LINE) : 316 mV, 10 kΩ or more (NV-MX7)
DIGITAL STILL PICTURE	Digital Still Picture Output, Control Signal Input / Output (Transfer rate: max. 115 kbps)
DIGITAL INTERFACE	DV Output Terminal (i. LINK, 4 pin) ; NV-MX1, NV-MX5 DV Input/Output Terminal (i. LINK, 4pin) ; NV-MX3, NV-MX7
MICROPHONE	Stereo
SPEAKER	1 round speaker ϕ20 mm
OPERATING TEMPERATURE	0-40 ˚C
OPERATING HUMIDITY	10-80 %
WEIGHT	Approx. 530 g (without Battery Pack and DV Cassette): NV-MX1, NV-MX3 Approx. 540 g (without Battery Pack and DV Cassette): NV-MX5, NV-MX7
DIMENSIONS	Approx. 68 (W) x 86 (H) x 159 (D) mm
STANDARD ACCESSORIES	1 pc. AC Adaptor 1 pc. Battery Pack Unit 1 pc. S-VIDEO Cable 1 pc. Shoulder Strap 1 pc. DC Input Cable 1 pc. AC Mains Cable 1 pc. AV Cable 1 pc. Remote Controller 1 pc. Bottom-type Battery 1 pc. Cassette 1 pc. Head Cleaner 1 pc. Hood Cap Unit 1 pc. MMC Unit ; NV-MX5, NV-MX7 1 pc. Driver Soft ; NV-MX7DEN 1 pc. Hood Strap 1 pc. Lens Hood Unit 1 pc. SD/MMC External Drive ; NV-MX7DEN

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

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Panasonic

1. INTRODUCTION

1.1. INTRODUCTION1

This service manual contains technical information which will allow service personnel's to understand and service this model.Please place orders using the parts list and not the drawing reference numbers. If the circuit is changed or modified, this information will be followed by supplement service manual to be filed with original service manual.

Note 1:
These movie camera uses AC Adaptor is VSK0581.
The service manual for AC Adaptor is separate volume.
Order number for AC Adaptor-----VSK0581 : VMD0004017C8

Note 2:
This service manual does not contain the following information, because of the impossibility of sevicing at component level.

1. Schematic Diagram, Block Diagram and C.B.A. layout of Main C.B.A.& Camera C.B.A.

2. Parts List for individual parts of Main C.B.A.& Camera C.B.A.

3. Exploded View and Parts List for individual parts of Mechanism Unit.

When a part replacement is required for repairing Main C.B.A., Camera C.B.A. and/ or mechanism block, replace the assembly parts.
The following circuits are contained in Main C.B.A.

1. Main Connection Circuit

2. Drive Circuit

3. AV Driver Circuit

4. Video 1 Circuit

5. Video 2 Circuit

6. Video 3 Circuit

7. Control Circuit

8. Digital Interface Circuit

9. LCD Circuit

10. DSC Circuit

11. Head/Rec Amp Circuit

12. Power Circuit

13. Ex. Input Circuit

The following circuits are contained in Camera C.B.A.

1. Sub Connection Circuit

2. Lens Drive Circuit

3. Camera Circuit

Comparison Chart

Function	NV-MX1	NV-MX3	NV-MX5	NV-MX7
Card Function (Multi Media Card, SD Card)	———	———	●	●
External Input	———	●	———	●

2. CAUTION FOR AC CORD (VJA0940 TYPE)

2.1. INFORMATION FOR YOUR SAFETY

IMPORTANT

Your attention is drawn to the fact that recording of pre-recorded tapes or discs or other published or broadcast material may infringe copyright laws.

WARNING

To reduce the risk of fire or shock hazard, do not expose this equipment to rain or moisture.

CAUTION

To reduce the risk of fire or shock hazard and annoying interference, use the recommended accessories only.

FOR YOUR SAFETY
DO NOT REMOVE THE OUTER COVER
To prevent electric shock, do not remove the cover. No user serviceable parts inside. Refer servicing to qualified service personnel.

2.2. CAUTION FOR AC MAINS LEAD

For your safety, please read the following text carefully.
This appliance is supplied with a moulded three-pin mains plug for your safety and convenience.
A 5-ampere fuse is fitted in this plug.
Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5 amperes and it is approved by ASTA or BSI to BS1362
Check for the ASRA mark or the BSI mark on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.
If you lose the fuse cover, the plug must not be used until a replacement cover is obtained.
A replacement fuse cover can be purchased from your local Panasonic Dealer.
If the fitted moulded plug is unsuitable for the socket outlet in your home then the fuse should be removed and the plug cut off and disposed of safety.
There is a danger of severe electrical shock if the cut off plug is inserted into any 13-ampere socket.
If a new plug is to be fitted please observe the wiring code as shown below.
If in any doubt, please consult a qualified electrician.

2.2.1. Important

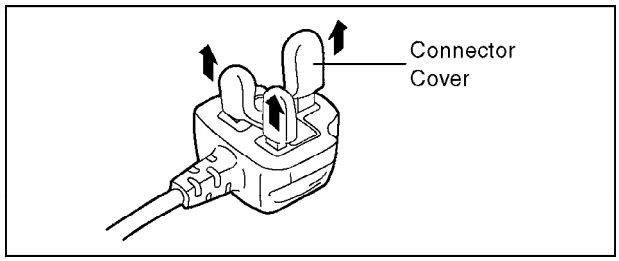
The wires in this mains lead are coloured in accordance with the following code:

Blue	**Neutral**
Brown	**Live**

As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
The wire which is coloured BLUE must be connected to the terminal in the plug which is marked with the letter N or coloured BLACK.
The wire which is coloured BROWN must be connected to the terminal in the plug which is marked with the letter L or coloured RED.
Under no circumstances should either of these wires be connected to the earth terminal of the three pin plug, marked with the letter E or the Earth Symbol.

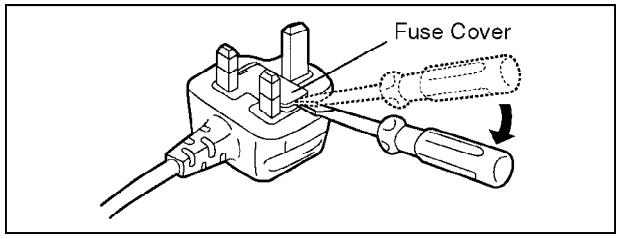
2.2.2. Before use

remove the Connector Cover as follows.

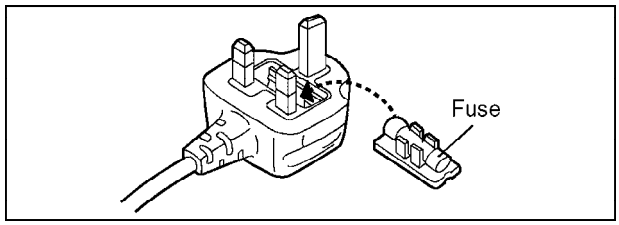


2.2.3. How to replace the Fuse

1. Remove the Fuse Cover with a screwdriver.



2. Replace the fuse and attach the Fuse cover.



3. SERVICE CAUTION

3.1. EEPROM DATA FOR SPARE PARTS OF THE VTR MAIN C.B.A.

When the VTR Main C.B.A. is replaced, the fixed and average data must be changed by Goatskin kit according to the Movie Camera's suffix.
Then, confirm and/or adjust the VTR and Camera adjustment one by one.

3.2. SERVICE EXTENSION CABLES.

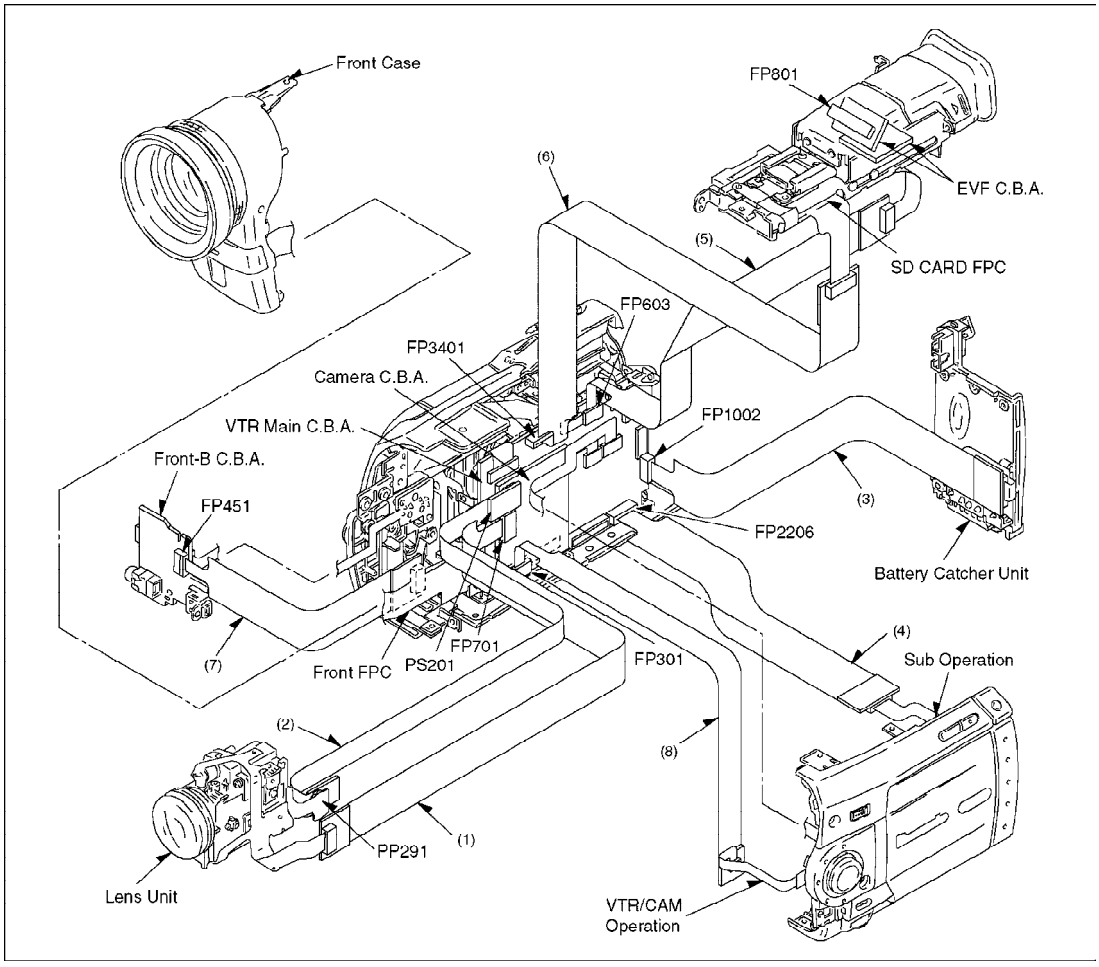
This models is required the following extension cables for all connections.

Note 1:
Use the following extension cables when checking or adjusting individual circuit boards except module Parts. (Main C.B.A., Camera C.B.A. and Mechanism Unit)

Ref.	Part No.	Pin	Part name	Connection	Q'ty	Remarks
(1)	VFK1491	27	Flat Cable	FP701(Camera) - Lens Flex.	1	As NV-DS99
(2)	VFK1460	20	Flat Cable	PS201 (Camera) - PP291(CCD)	1	As NV-EX1
(3)	VFK1173	14	Flat Cable	PP1002(Main) - Battery Catcher	1	As NV-DX1
(4)	VFK1443	18	Flat Cable	FP2206(Main) - Sub Operation	1	As NV-DS77
(5)	VFK1442	21	Flat Cable	FP603(Main) - FP801(EVF A C.B.A)	1	As NV-DS77
(6)	VFK1443	18	Flat Cable	FP3401(Main) - SD Card FPC	1	As NV-DS77
(7)	VFK1491	27	Flat Cable	FP451(Front B C.B.A) - Front FPC	1	As NV-DS99
(8)	VFK1452	17	Flat Cable	FP301(Camera) -VTR/Cam Operation	1	As NV-DS77

How to use extension cables.

Fig. T1-1



3.3. LOCATION FOR SPARE CONNECTORS

3.3.1. VTR MAIN C.B.A.

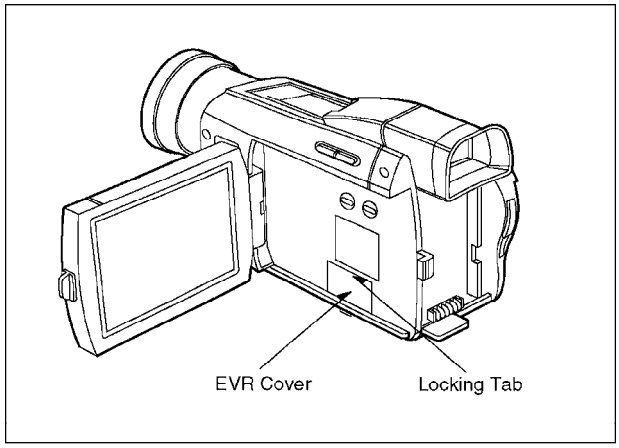
3.3.2. CAMERA C.B.A.

4. PREPARATION FOR ELECTRICAL ADJUSTMENT

1. Unlock the locking tab and remove the EVR connector cover which is located on Side Case Unit as follows.

2. Then connect the following cables as shown inFig. E2.

Fig. E1



Part No.	Part Name	Q'ty	Remarks
VFK1395	232C(M3)I/F Cable	1	
VFK1308E	Measuring Board	1	
VFK1309	EVR Connector Board	1	
VFK1317	30 Pin Flat Cable	2	
VJA0941	DC Output Cable	1	For AC Adaptor
VFK1164TAR9	Setup Ring	1	For Collimator
VFK1309EX	Connection Adaptor	1	

Fig. E2

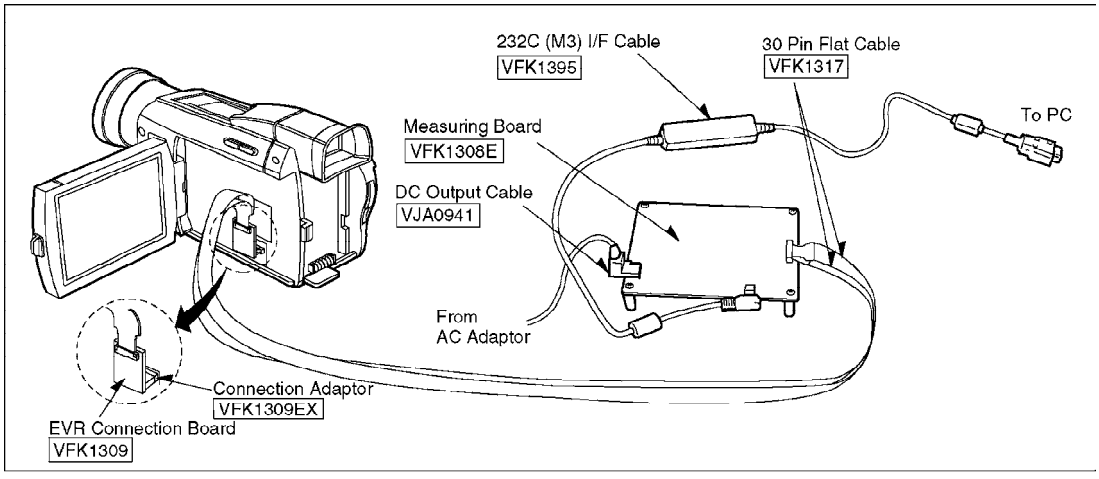
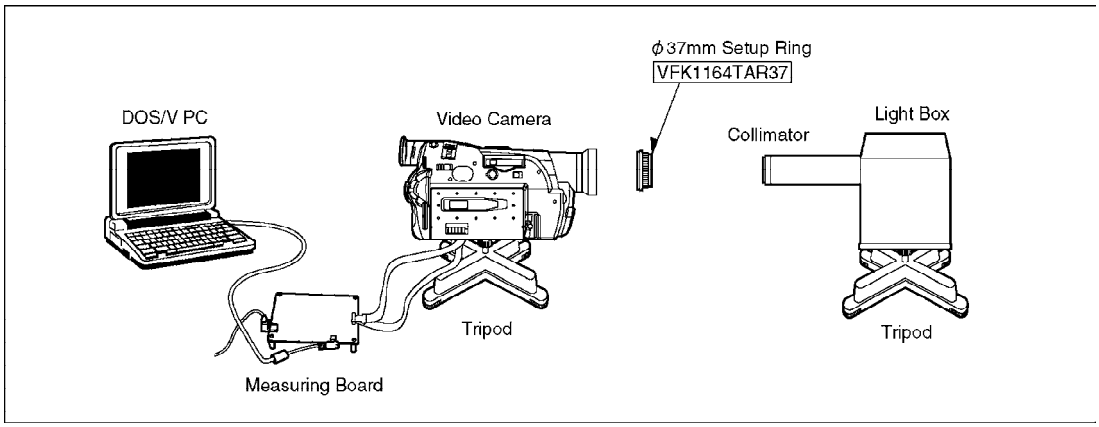
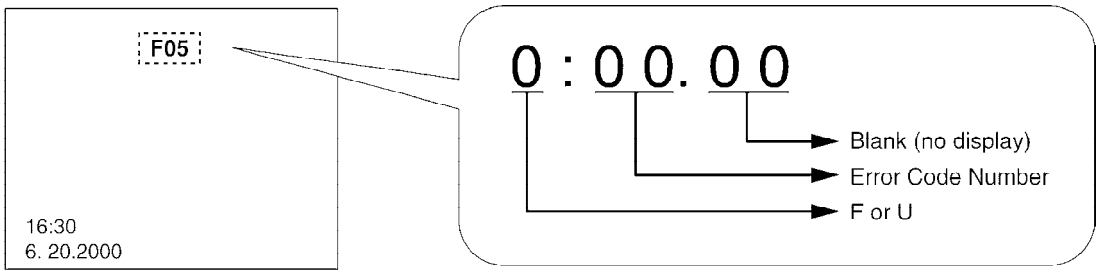


Fig. E3



5. SERVICE MODE

When undesirable conditions occurred, the error code is displayed on the EVF or LCD Monitor. Also, the Camera LED is flashed according to the error code as follows.



EVF or LCD Monitor

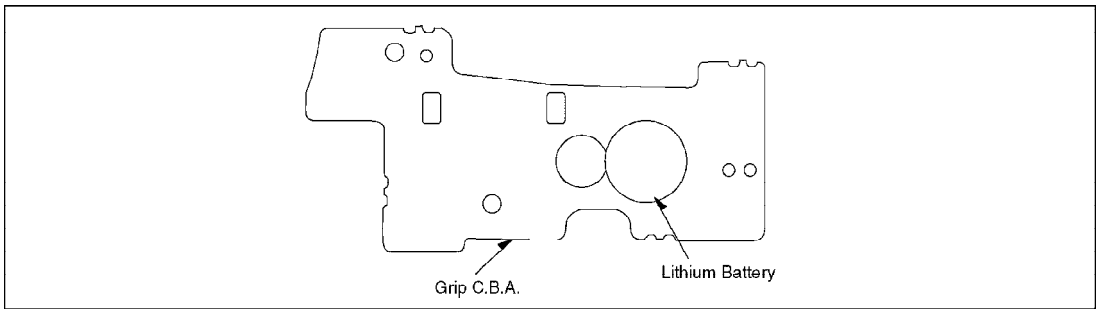
DISPLAY	CONDITION	POWER OFF TIMING / POWER LED FLASHING TIMING
F01	T-Reel Lock	After 1 minute flashing the LED
F02	S-Reel Lock	After 1 minute flashing the LED
F03	Unloading Lock	After 1 minute flashing the LED
F04	Loading Lock	After 1 minute flashing the LED
F05	Cylinder Lock	After 1 minute flashing the LED
F31	Data Transmission Error	Not turning OFF
F51	Focus Motor Lock	Not turnig OFF Power LED is flashed at 1 Hz timing
F52	Zoom Motor Lock	Not turnig OFF Power LED is flashed at 1 Hz timing
U10	Dew Detection	After 18 seconds flashing the LED Power LED is flashed at 1 Hz timing
U11	Head Clogging	Not turning OFF

6. HOW TO REPLACE THE LITHIUM BATTERY (PROCEDURE)

1. Remove the Grip C.B.A. from Side Case (L). (Refer to Disassembly Procedures.)

2. Unsolder the Lithium Battery“VSB0407” and then replace the new one. (SeeFig. B1.)

Fig. B1



Note:
The lithium battery is a critical component. (Type No.: VSB0407 Manufactured by Panasonic.)
It must never be subjected to excessive heat or discharge.
It must therefore only be fitted in equipment designed specifically for its use.
Replacement batteries must be of the same type and manufacture.
They must be fitted in the same manner and location as the original battery, with the correct polarity contacts observed.
Do not attempt to re-charge the old battery or re-use it for any other purpose.
It should be disposed of in waste products destined for burial rather than incineration.

CAUTION

Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type recommended by the equipment manufacturer.
Discard used batteries according to manufacturer's instructions.

VARNING

Explosionsfara vid felaktigt batteribyte.
Använd samma batterityp eller en ekvivalent typ som rekommenderas av apparattillverkaren.
Kassera använt batteri enligt fabrikantens instruktion.

ADVARSEL!

Lithiumbatteri - Eksplosionsfare ved fejlagtig håndtering.
Udskiftning må kun ske med batteri af samme fabrikat og type.
Levér det brugte batteri tilbage til leverandøren.

VAROITUS

Paristo voi räjähtää, jos se on virheellisesti asennettu.
Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppiin. Hävitä käytetty paristo valmistajan ohjeiden mukaisesti.

7. OPERATING GUIDE

8. ADJUSTMENT PROCEDURES

8.1. DISASSEMBLE FLOW CHART

This flow chart indicates the disassembly steps the cabinet parts, C.B.A. and Mecha. Unit in order to access to be serviced. When reinstalling, perform the steps in the reverse order.

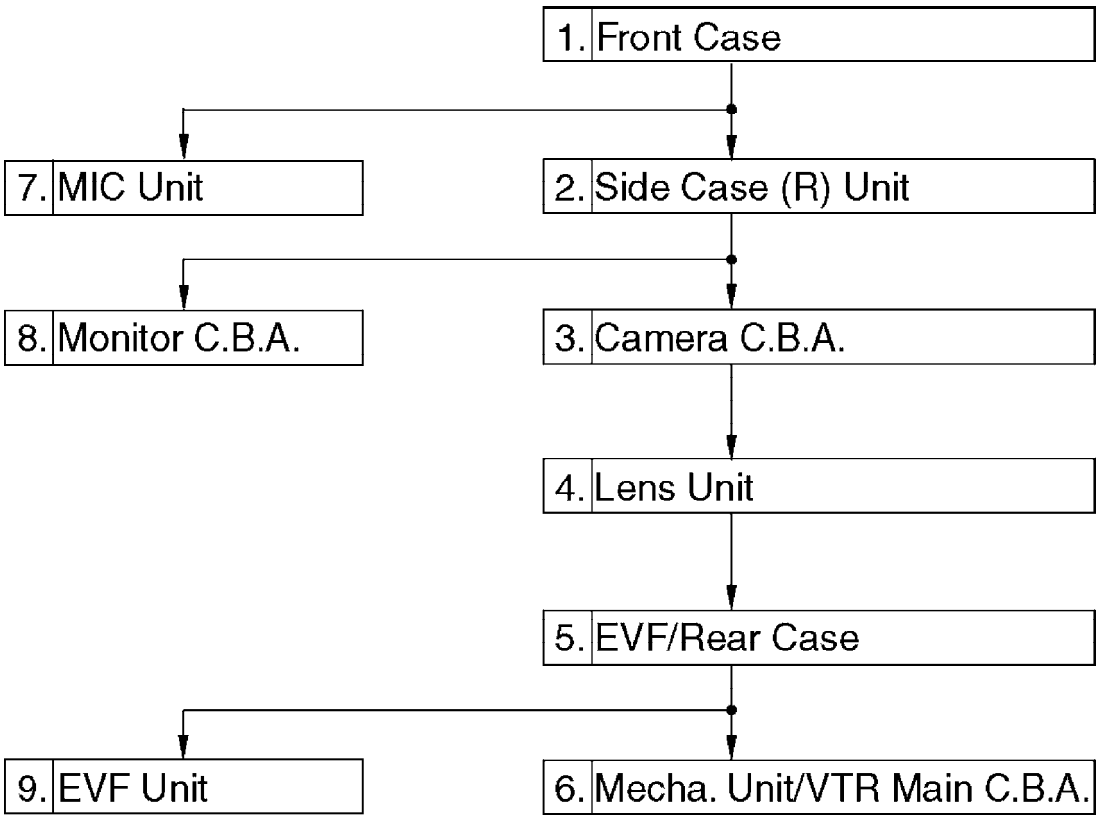
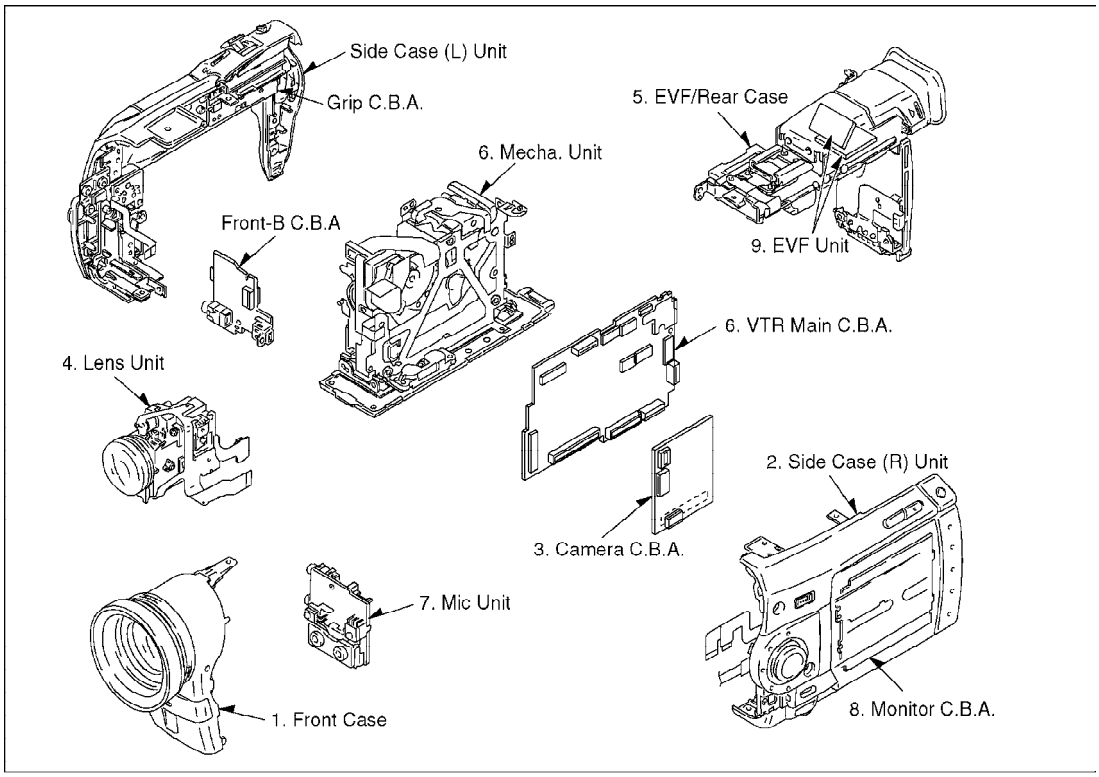


Fig. F1



8.2. DISASSEMBLY PROCEDURES

Flow-Chart for Disassembly Procedure

No.	Item/Part	Fig.	Removal (Screw& Other)
1.	Front Case Unit	Fig. 1	1-Screw (A)
		Fig. 2	2-Screws (B/C)
		Fig. 3	2-Screws (D/E) Disconnect the FP4901. Remove the Front Case Unit.
2.	Side Case (R) Unit	Fig. 4	1-Screw (F)
		Fig. 5	6-Screws (G)
		Fig. 6	4-Screws (H/I/J/K) Disconnect the following connectors. FP301/FP2206/FP601/FP602 Remove the Side Case (R) Unit.
3.	Camera C.B.A & Lens Unit	Fig. 7	Disconnect the following connectors. PS201/FP701/PP301 Remove the Camera C.B.A..
		Fig. 8	1-Screw (L) Remove the Lens Unit.

No.	Item/Part	Fig.	Removal (Screw& Other)
4.	EVF/ Rear Case Unit	Fig. 9	1-Screw (M)
		Fig. 10	4-Screws (N/W) Disconnect the following connectors. FP3401/FP603/FP1002 Remove the EVF/Rear Case Unit.
5.	VTR Main C.B.A& Mecha.	Fig. 11	1-Screw (O) Disconnect the FP4001/ FP2205
		Fig. 12	Cassette Cover Open Unlock the Lock Release Lever.
		Fig. 11	Remove the Mecha. with VTR Main C.B.A..
6.	VTR Main C.B.A	Fig. 13	Disconnect the following connectors. FP5001/FP2202/FP2203/ FP2201/ FP2204 Unlocks - (a) 3-Screws (P) Remove the Mecha. Frame.
7.	Mic Unit	Fig. 14	2-Screws (Q) Disconnect the FP4902. Remove the Mic Unit. 4-Screws (R) Remove the Focus Ring.
8.	Monitor C.B.A.	Fig. 15	4-Screws (S/T) Remove the LCD Case (Upper) Unit. 1-Screw (U) Disconnect the following connectors. FP901/FP903/FP904/FP905 Unsolder read wire. Removethe Hall Sensor Flex. /Monitor C.B.A./ Back Light Unit.

No.	Item/Part	Fig.	Removal (Screw& Other)
9.	EVF Unit	Fig. 16	2-Screws (V). Remove the EVF Unit from Rear Case Unit.
		Fig. 17	Unlocks - (b) Remove the Eye Cap Unit. Remove the EVF Case (Upper).
		Fig. 18	Remove the EVF 1(U).....EVF A/B C.B.A
		Fig. 19	Disconnect the FP801/FP802. Unlocks - (c) Remove the EVF-B C.B.A..

Fig. 1

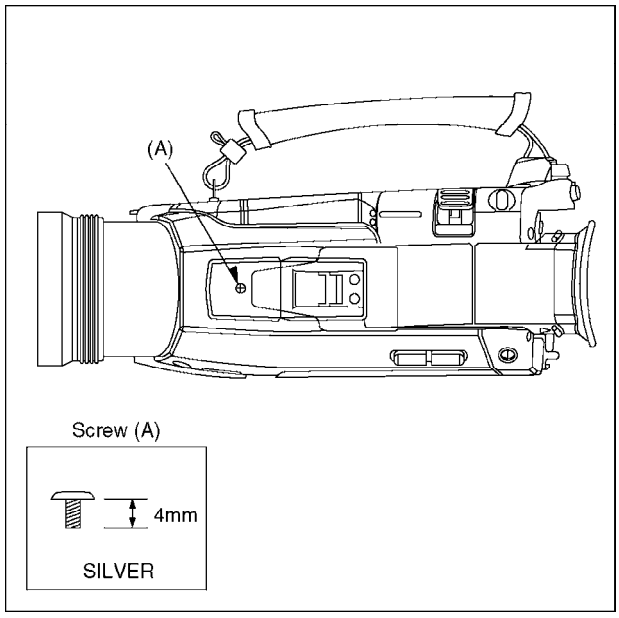


Fig. 2

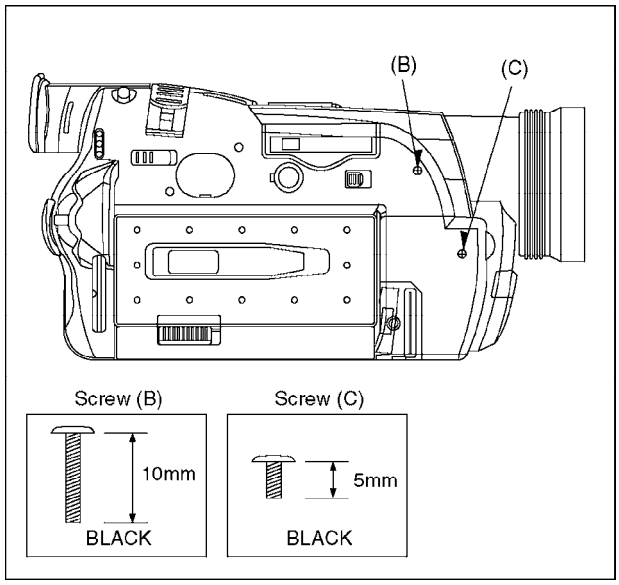

(B)
(C)
Screw (B)
10mm
BLACK
Screw (C)
5mm
BLACK

Fig. 3

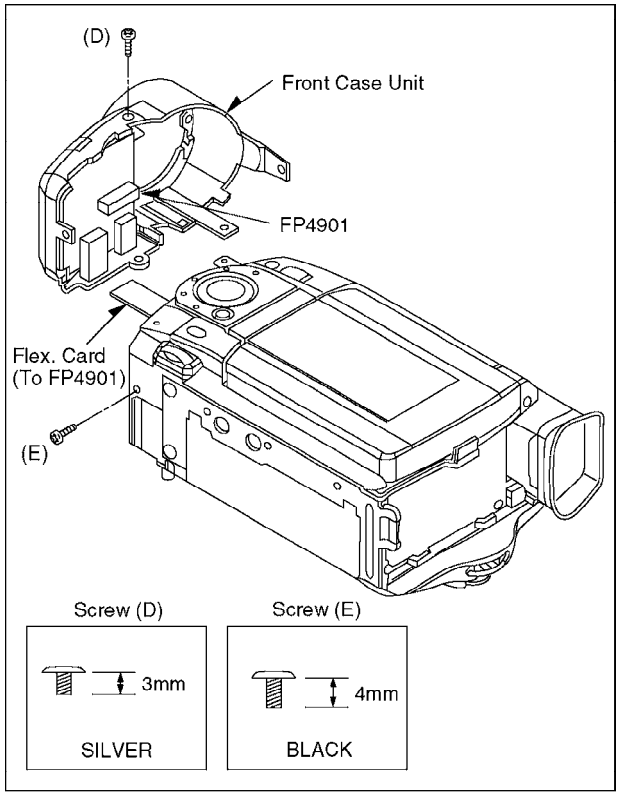

(D)
Front Case Unit
FP4901
Flex. Card
(To FP4901)
(E)
Screw (D)
3mm
SILVER
Screw (E)
4mm
BLACK

Fig. 4

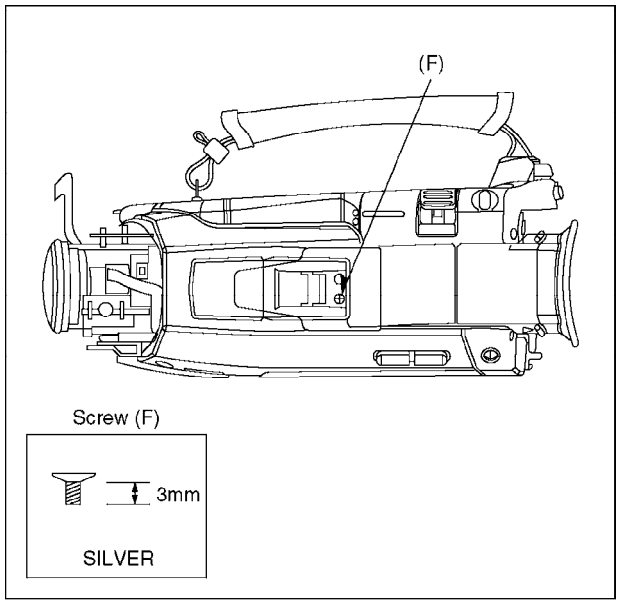


Fig. 5

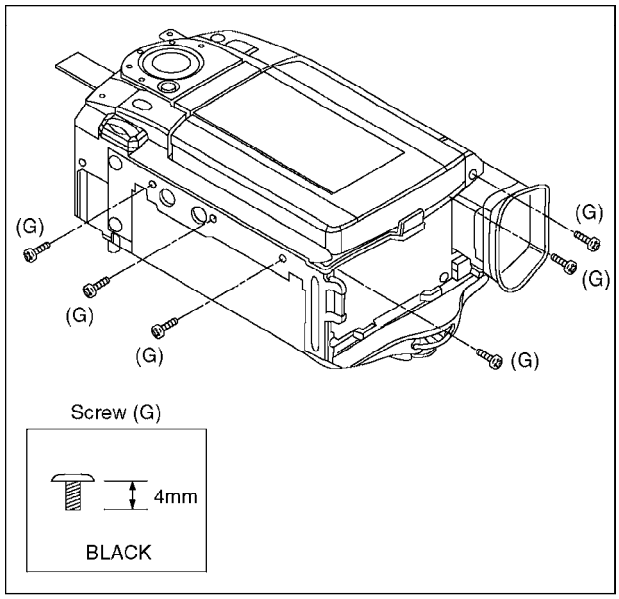


Fig. 6

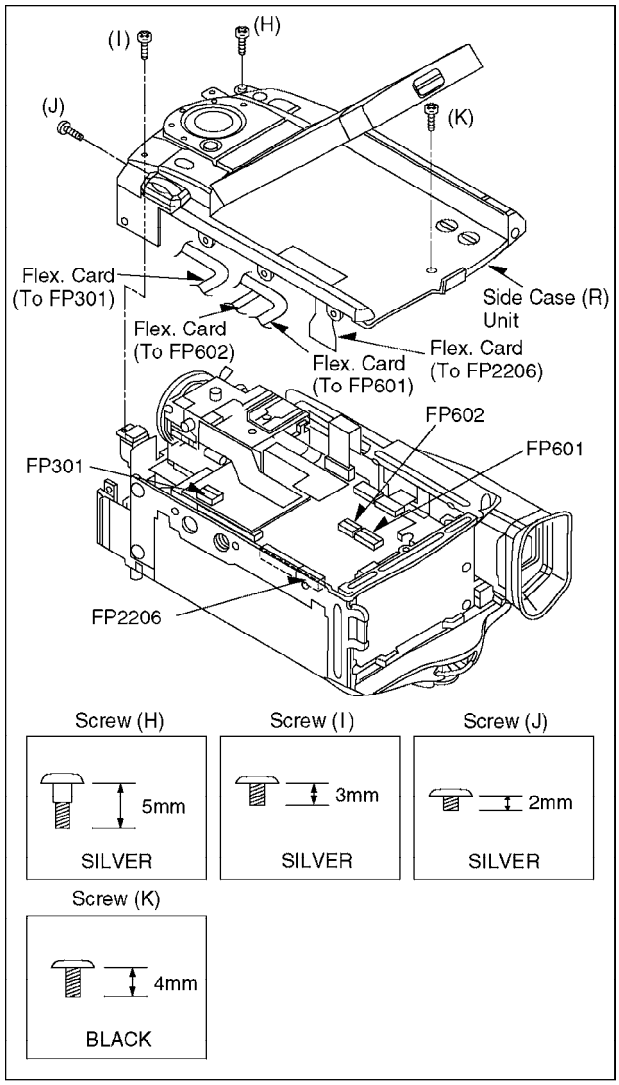

(I)
(H)
(J)
(K)
Flex. Card
(To FP301)
Flex. Card
(To FP602)
Flex. Card
(To FP601)
Flex. Card
(To FP2206)
Side Case (R)
Unit
FP602
FP601
FP301
FP2206
Screw (H)
5mm
SILVER
Screw (I)
3mm
SILVER
Screw (J)
2mm
SILVER
Screw (K)
4mm
BLACK

Fig. 7

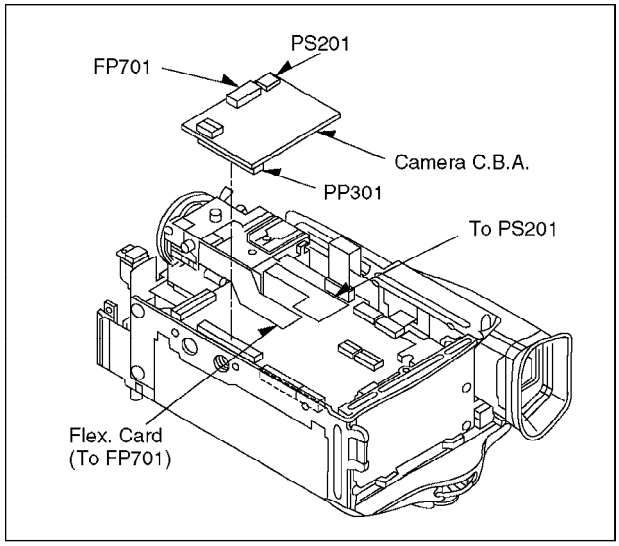

PS201
FP701
Camera C.B.A.
PP301
To PS201
Flex. Card
(To FP701)

Fig. 8

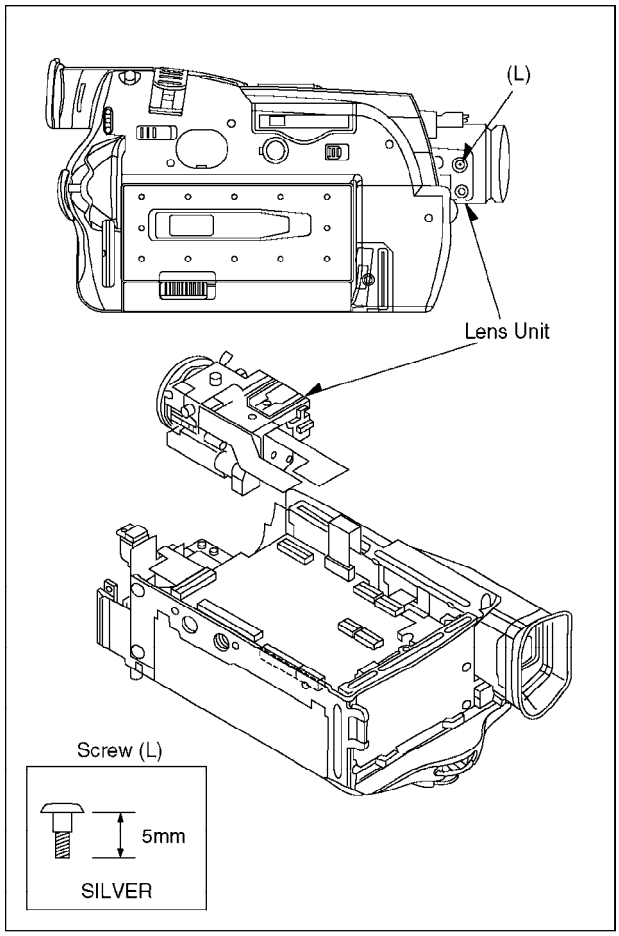


Fig. 9

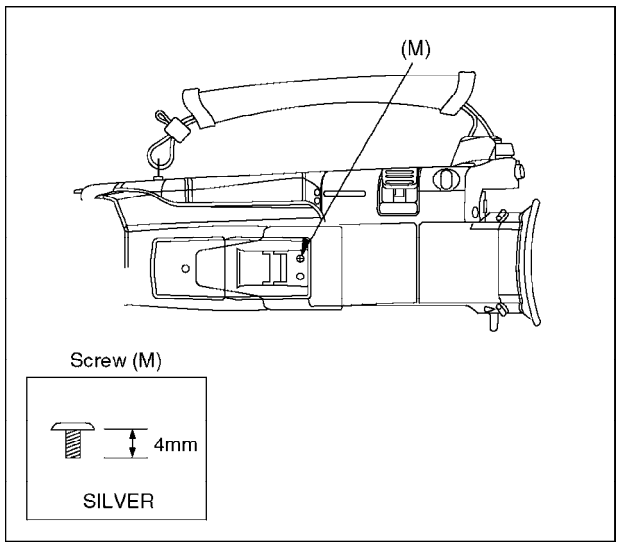


Fig. 10

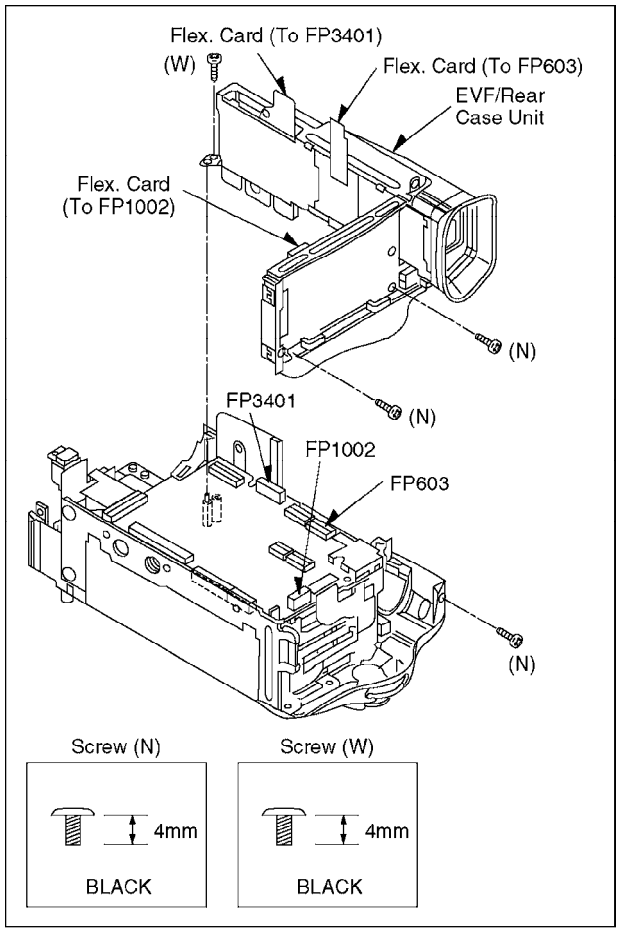

Flex. Card (To FP3401)
(W)
Flex. Card (To FP603)
EVF/Rear
Case Unit
Flex. Card
(To FP1002)
(N)
(N)
FP3401
FP1002
FP603
(N)
Screw (N)
Screw (W)
4mm
BLACK
4mm
BLACK

Fig. 11

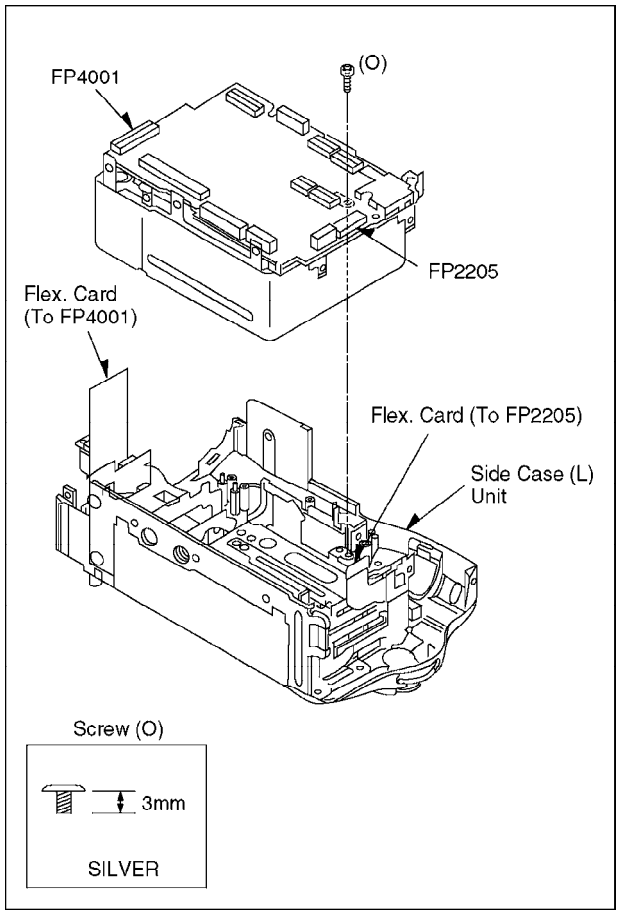

FP4001
(O)
FP2205
Flex. Card
(To FP4001)
Flex. Card (To FP2205)
Side Case (L)
Unit
Screw (O)
3mm
SILVER

Fig. 12

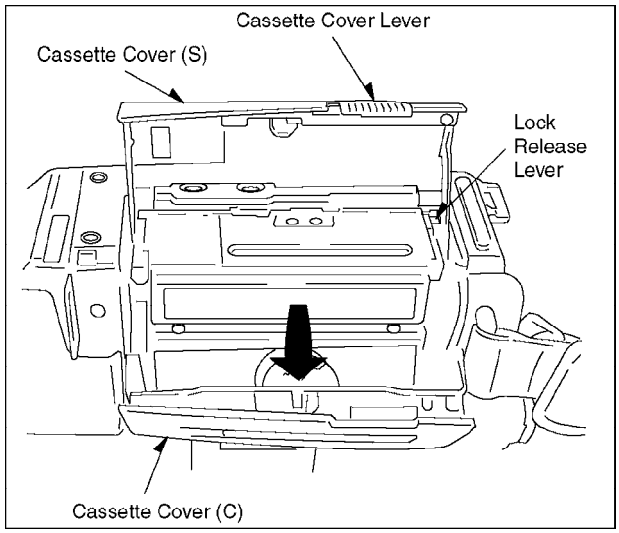

Cassette Cover Lever
Cassette Cover (S)
Lock
Release
Lever
Cassette Cover (C)

Fig. 13

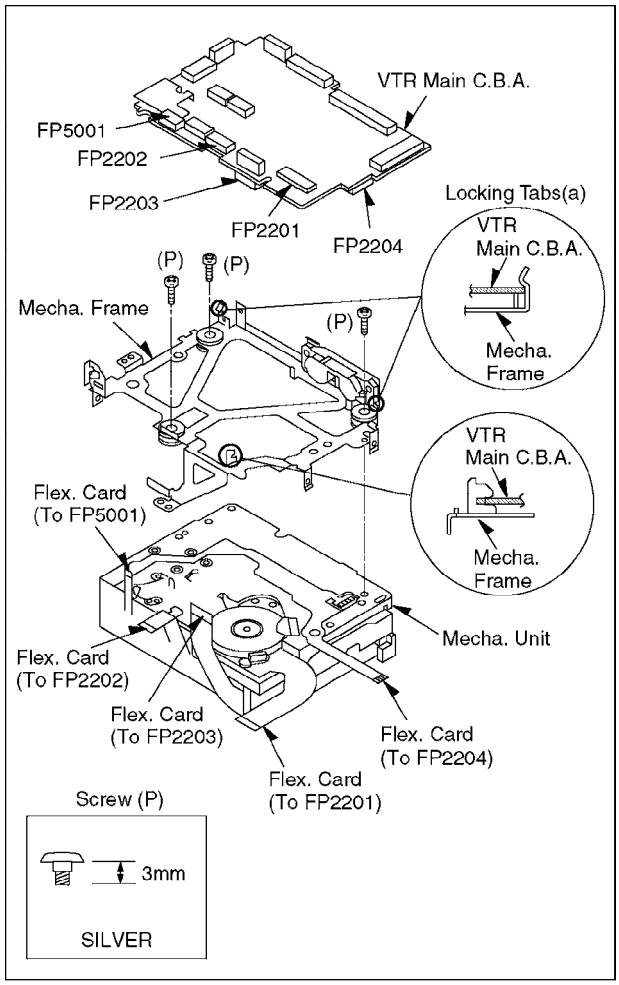

VTR Main C.B.A.
FP5001
FP2202
FP2203
FP2201
FP2204
Locking Tabs(a)
VTR
Main C.B.A.
Mecha.
Frame
(P)
(P)
(P)
Mecha. Frame
VTR
Main C.B.A.
Mecha.
Frame
Flex. Card
(To FP5001)
Mecha. Unit
Flex. Card
(To FP2202)
Flex. Card
(To FP2203)
Flex. Card
(To FP2204)
Flex. Card
(To FP2201)
Screw (P)
3mm
SILVER

Fig. 14

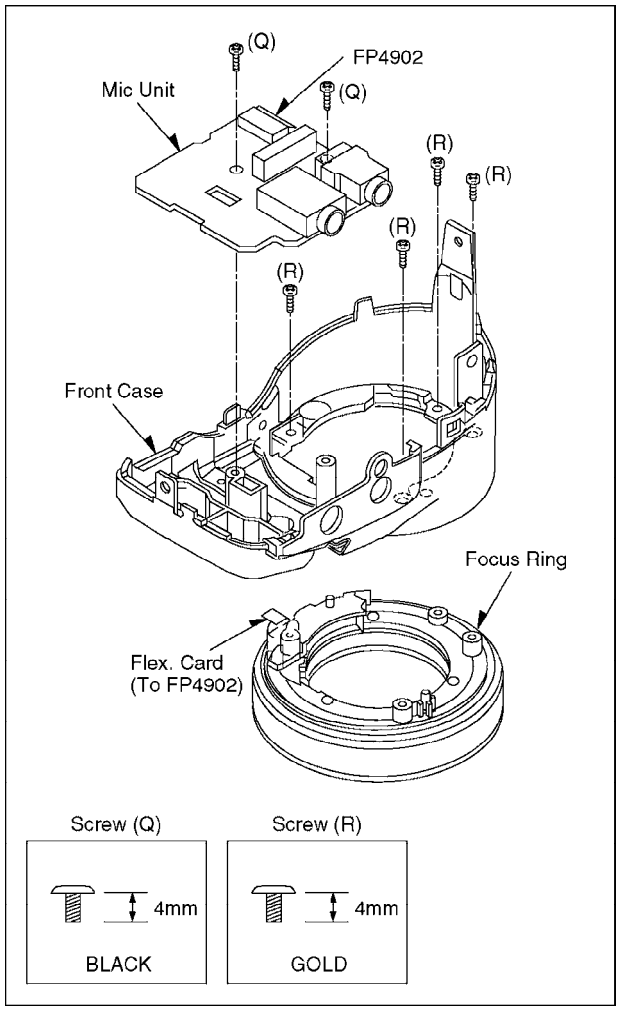

(Q)
FP4902
Mic Unit
(Q)
(R)
(R)
(R)
(R)
Front Case
Focus Ring
Flex. Card
(To FP4902)
Screw (Q)
Screw (R)
4mm
BLACK
4mm
GOLD

Fig. 15

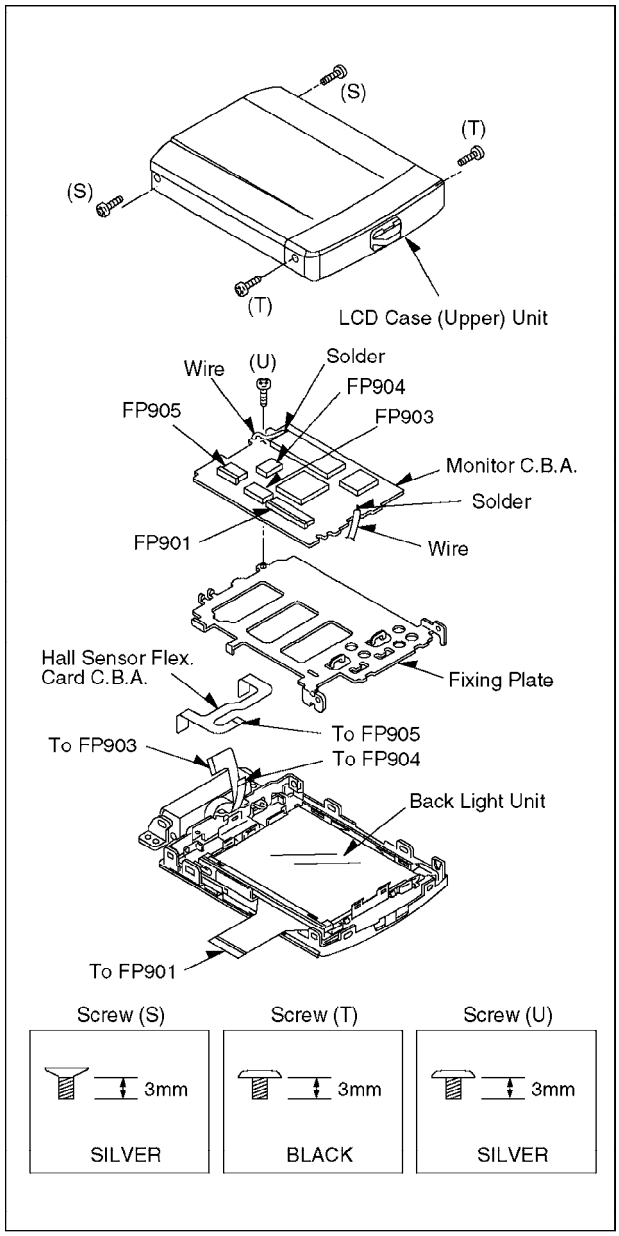

(S)
(T)
(S)
(T)
LCD Case (Upper) Unit
Wire
(U)
Solder
FP904
FP905
FP903
Monitor C.B.A.
Solder
FP901
Wire
Hall Sensor Flex.
Card C.B.A.
Fixing Plate
To FP905
To FP903
To FP904
Back Light Unit
To FP901
Screw (S)
Screw (T)
Screw (U)
3mm
3mm
3mm
SILVER
BLACK
SILVER

Fig. 16

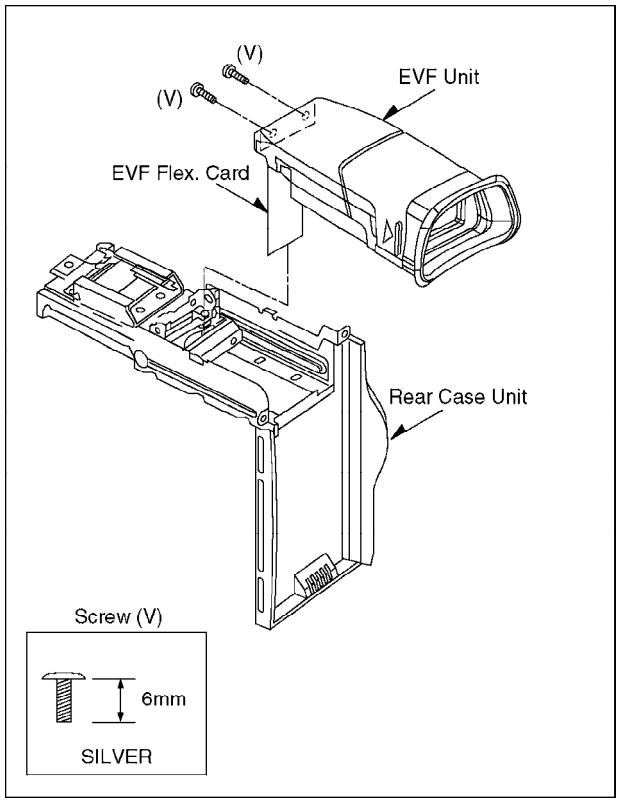

(V)
(V)
EVF Unit
EVF Flex. Card
Rear Case Unit
Screw (V)
6mm
SILVER

Fig. 17

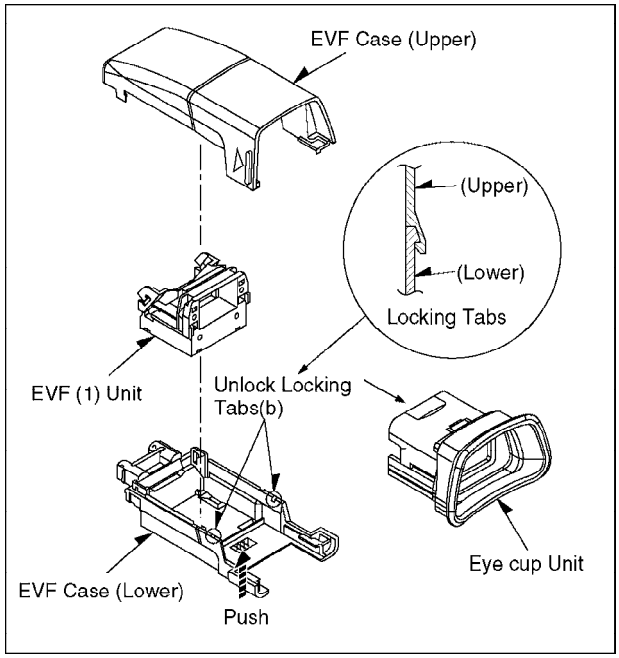

EVF Case (Upper)
(Upper)
(Lower)
Locking Tabs
EVF (1) Unit
Unlock Locking
Tabs(b)
Eye cup Unit
EVF Case (Lower)
Push

Fig. 18

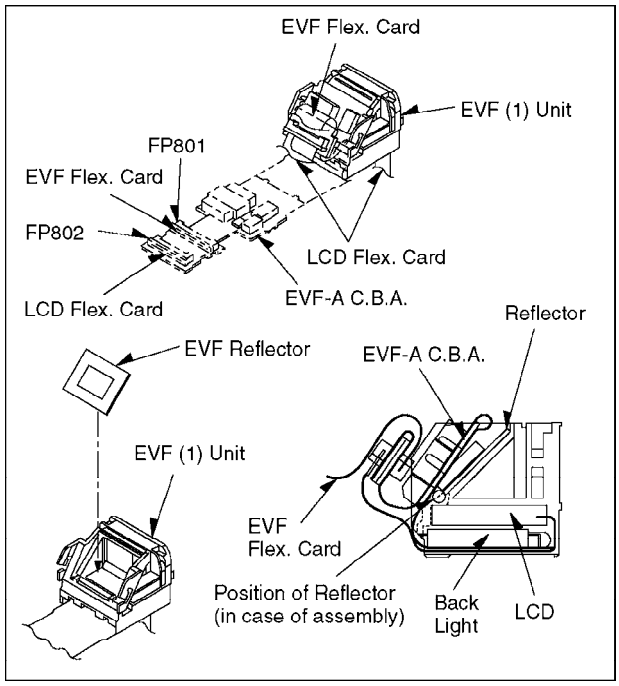
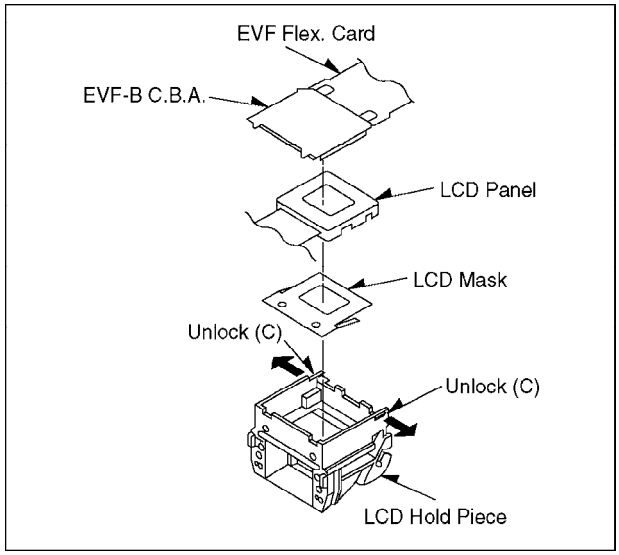


Fig. 19



8.3. DISASSEMBLY PROCEDURES OF CAMERA LENS UNIT

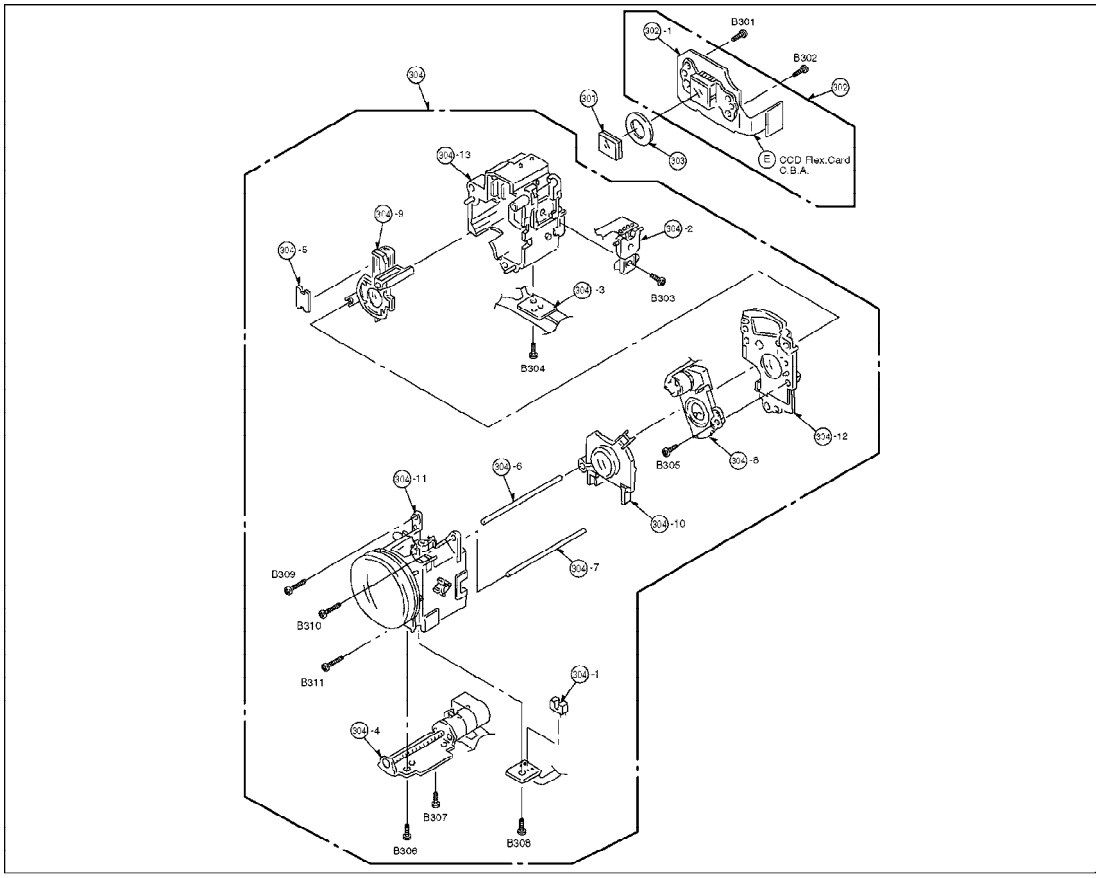
The following flowchart describes order or steps for removing the Camera lens unit and certain printed circuit boards in order to make access to the item needing service. / To reassemble the unit follow the steps in reverse order.

Fig. L1

1. CCD Unit	Ref.-No.302
2. CCD Cushion & Crystal Filter	Ref.-No.301/303
3. Lens Flex. Card C.B.A. & Zoom Motor Unit/Iris Unit	Ref.-No.304-3/304-4/304-8
4. Main Frame Unit & Photo Sensor	Ref.-No.304-11/304-1
5. 4th Moving Frame Unit & Guide Pole	Ref.-No.304-9/304-7
6. 3rd Movig Frame Unit	Ref.-No.304-12
7. 2nd Movig Frame Unit & Guide Pole	Ref.-No.304-10/304-6

Note 1:
Each Ref-numbers are equivalant to number of Fig.L1 and Parts List.

Fig. L2



9. ABBREVIATIONS

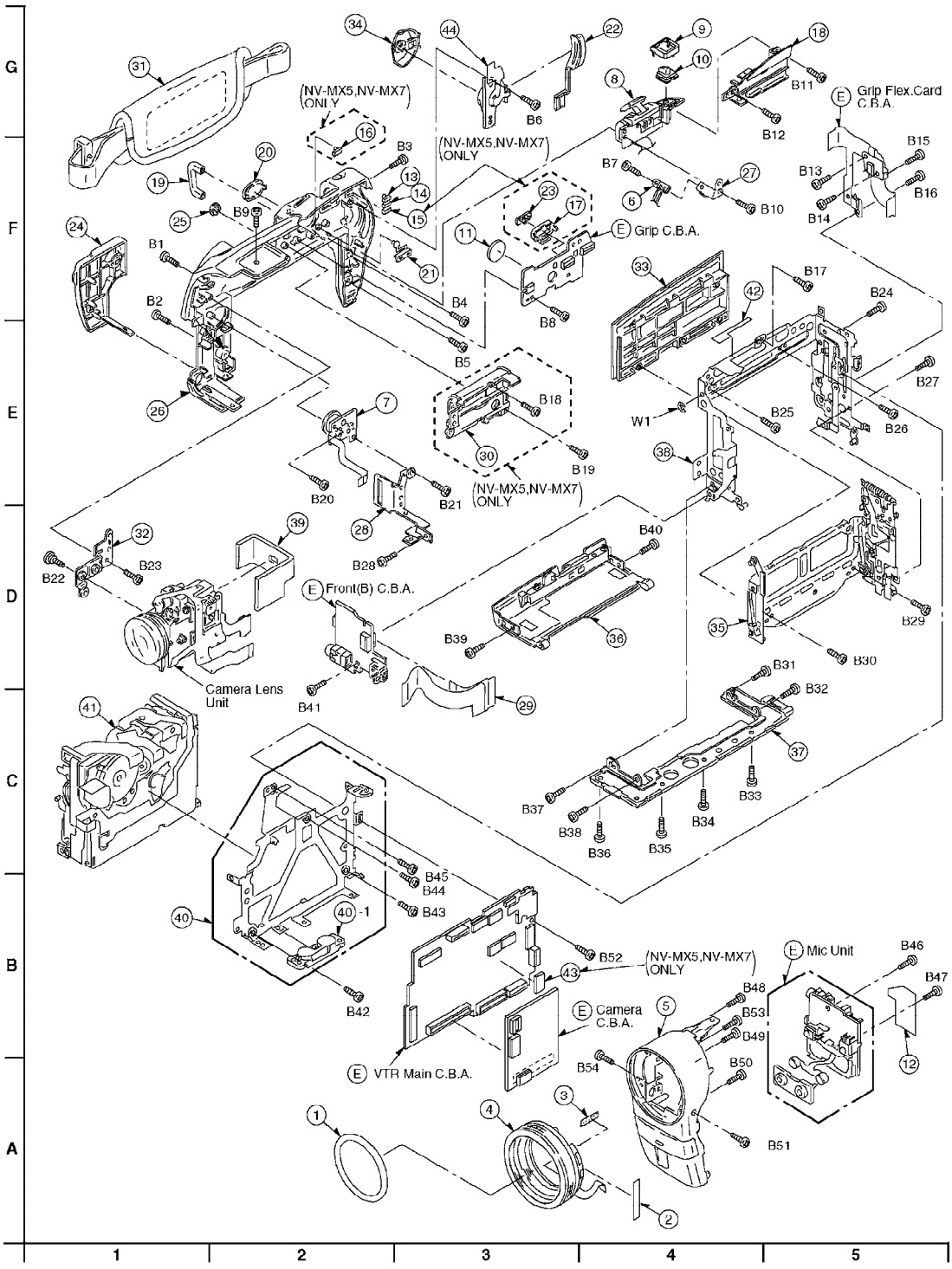
10. WAVEFORM TABLE

11. SCHEMATIC DIAGRAMS

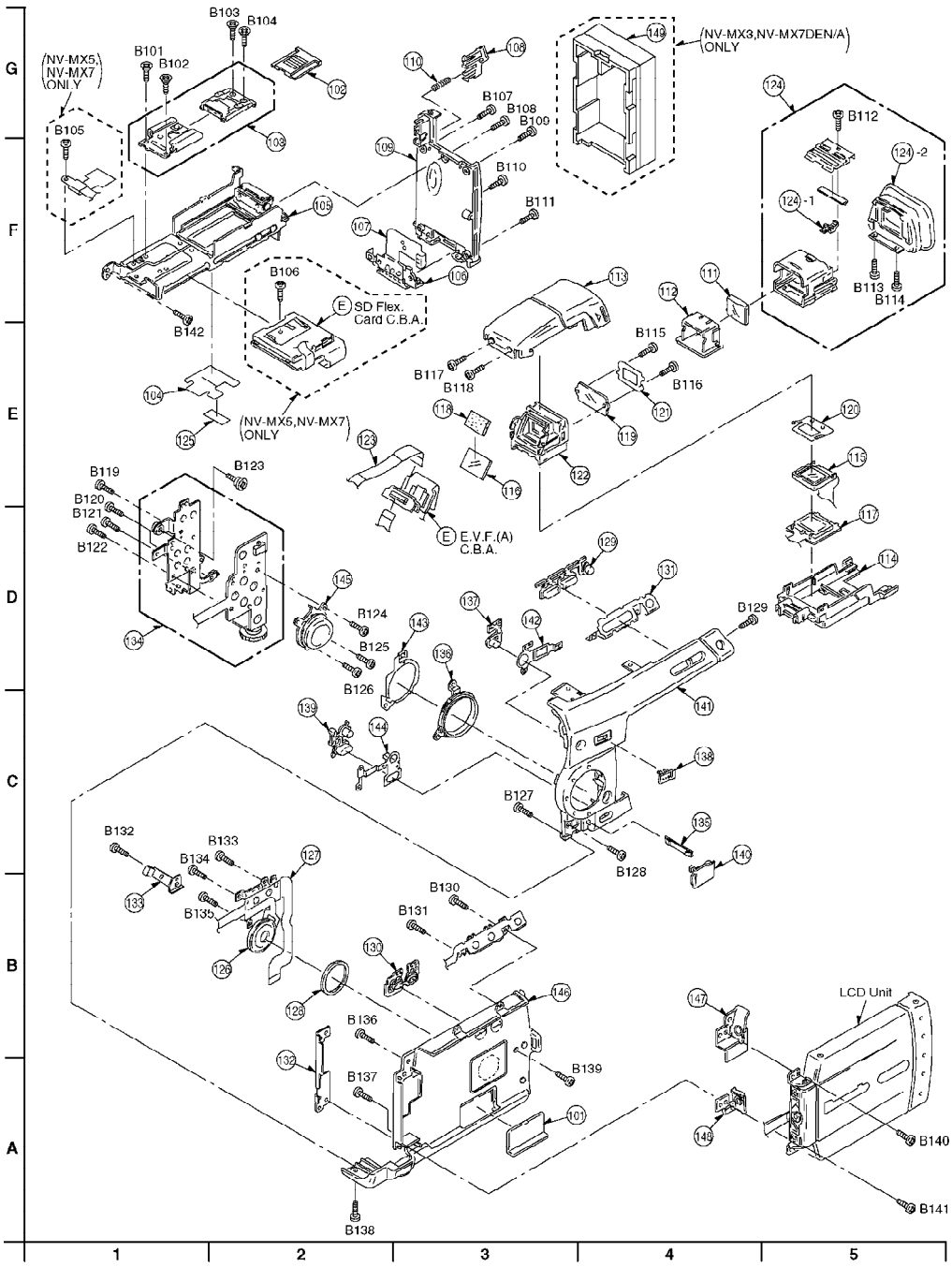
11.1. OVERALL SCHEMATIC DIAGRAM

11.2. INTERCONNECTION SCHEMATIC DIAGRAM

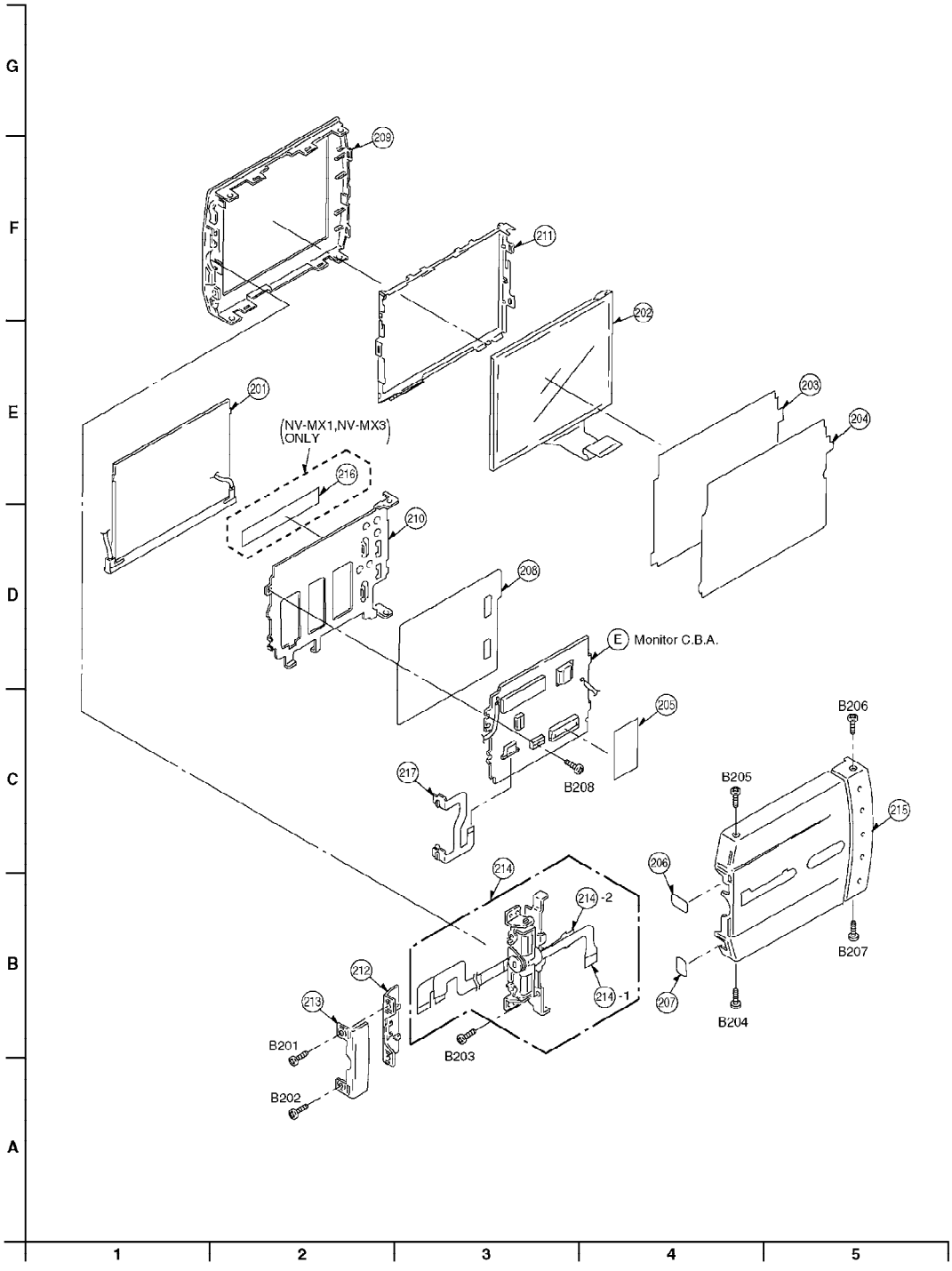
11.3. MIC UNIT SCHEMATIC DIAGRAM
11.4. MONITOR& HALL SENSOR FLEX. UNIT SCHEMATIC DIAGRAM
11.5. CCD FLEX. CARD SCHEMATIC DIAGRAM
11.6. FRONT (B) SCHEMATIC DIAGRAM
11.7. S JACK FLEX. UNIT SCHEMATIC DIAGRAM
11.8. MF UNIT SCHEMATIC DIAGRAM
11.9. SD FLEX. CARD SCHEMATIC DIAGRAM (NV-MX5, NV-MX7 ONLY)
11.10. EVF (A)& EVF (B) FLEX. SCHEMATIC DIAGRAM
11.11. GRIP FLEX. CARD SCHEMATIC DIAGRAM
11.12. GRIP SCHEMATIC DIAGRAM
11.13. S/S POWER FLEX. CARD SCHEMATIC DIAGRAM
11.14. ZOOM UNIT SCHEMATIC DIAGRAM
11.15. CAMERA/VTR OPERATION UNIT SCHEMATIC DIAGRAM
11.16. SUB OPERATION FLEX. UNIT SCHEMATIC DIAGRAM
12. CIRCUIT BOARD ASSEMBLIES
12.1. MONITOR C.B.A.
12.1.1. MONITOR ADDRESS INFORMATION
12.2. CCD FLEX. CARD C.B.A.
12.3. MIC UNIT
12.4. FRONT (B) C.B.A.
12.5. EVF (A) C.B.A.
12.6. GRIP C.B.A.
12.7. SD FLEX. CARD C.B.A.(NV-MX5, NV-MX7 ONLY)
13. EXPLODED VIEWS
13.1. FRAME& CASING SECTION (1)



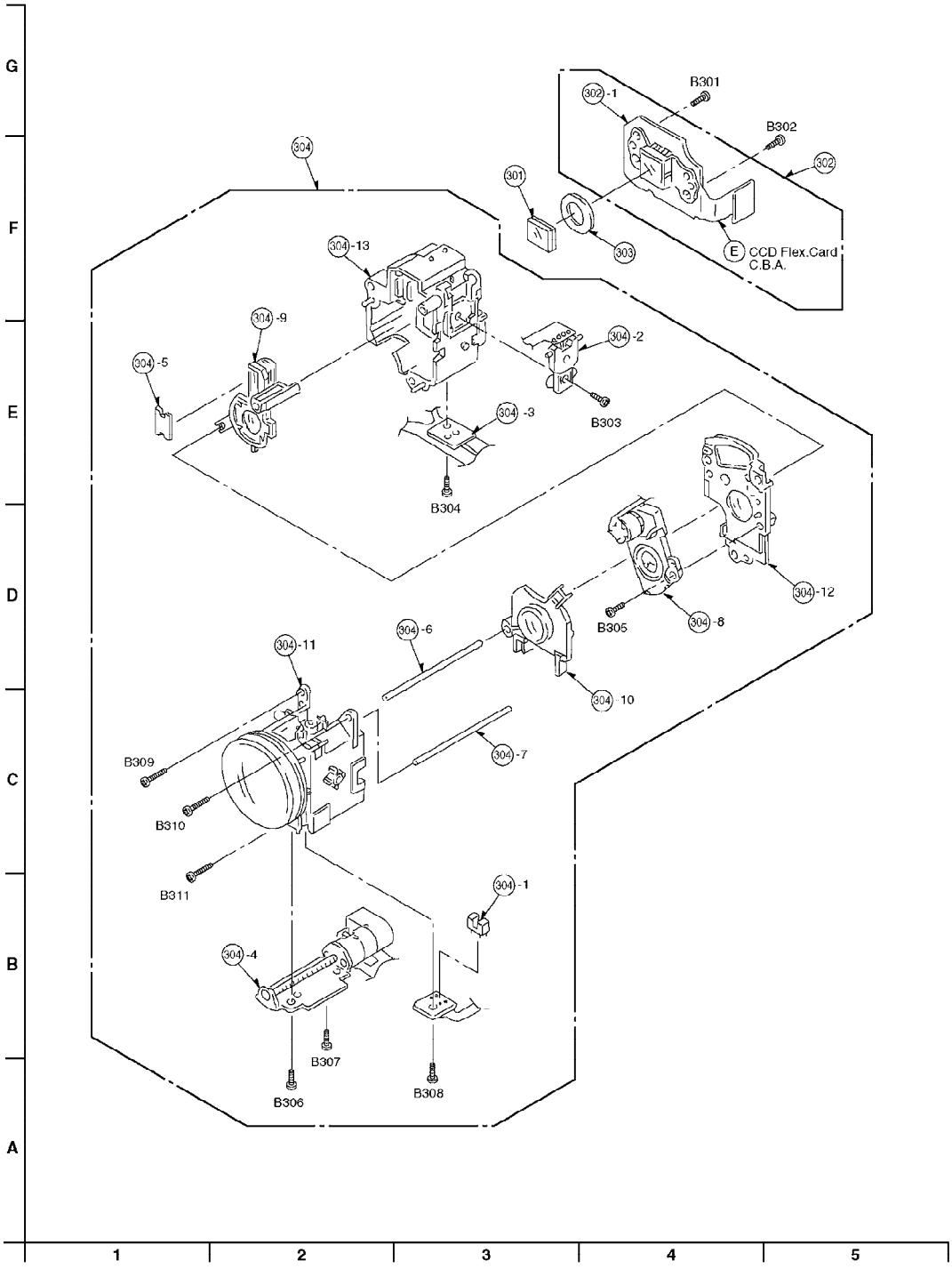
13.2. FRAME& CASING SECTION (2)



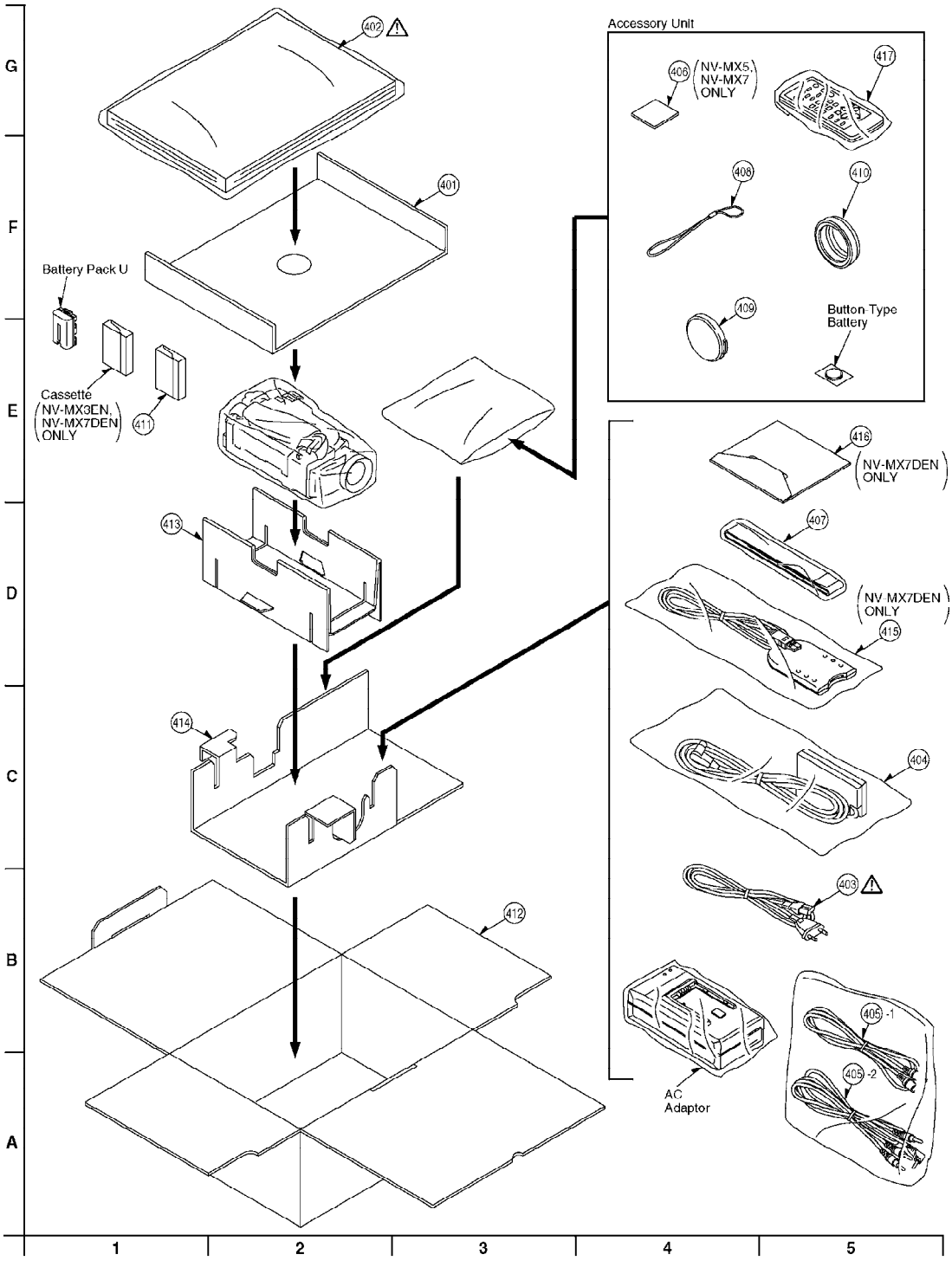
13.3. LCD SECTION



13.4. CAMERA LENS SECTION



13.5. PACKING PARTS& ACCESSORIES SECTION



14. REPLACEMENT PARTS LIST

14.1. FRAME& CASING SECTION (1) PARTS LIST

Note: 1. *Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark △ have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name& Description	Remarks
1 (1)	VGH4409	LENS RATING PLATE	
2 (1)	VGQ5810	MF INSULATION SHEET	
3 (1)	VGQ5884	TAPE	
4 (1)	VXP2045	MF U.	
5 (1)	VYK9618	FRONT CASE (1) U.	FOR NV-MX1,NV-MX5
5 (1)	VYK9619	FRONT CASE (1) U.	FOR NV-MX3,NV-MX7
6 (1)	VEK8778	DEW SENSOR U.	
7 (1)	VEK9085	S JACK FLEX. U.	
8 (1)	N9ZZ00000026	ZOOM U.	
9 (1)	VGQ5665	PHOTO BUTTON GUIDE	
10 (1)	VGU8416	PHOTO BUTTON	
11 (1)	VSB0407	BATTERY	
12 (1)	VMZ3095	FRONT INSULATION SHEET	
13 (1)	VGL0873	PANE LIGHT	
14 (1)	VGL0873	PANE LIGHT	
15 (1)	VGL0873	PANE LIGHT	FOR NV-MX5,NV-MX7
16 (1)	VGL0898	PANE LIGHT (SD)	FOR NV-MX5,NV-MX7
17 (1)	VGQ5814	MODE SELECT KNOB HOLDER	FOR NV-MX5,NV-MX7
18 (1)	VGQ5815	(L) COVER	
19 (1)	VGQ5851	GRIP BELT PIECE	
20 (1)	VGQ5886	MECHA. ADJ. PIECE	
21 (1)	VGU8420	RESET BUTTON	
22 (1)	VGU8422	S/S BUTTON	
23 (1)	VGU8568	MODE SELECT KNOB	FOR NV-MX5,NV-MX7
24 (1)	VKF3250	JACK COVER	
25 (1)	VKF3272	MECHA. ADJ. PIECE (SMALL)	
26 (1)	VKM5476	SIDE CASE (L)	FOR NV-MX1
26 (1)	VKM5477	SIDE CASE (L)	FOR NV-MX3
26 (1)	VKM5463	SIDE CASE (L)	FOR NV-MX5
26 (1)	VKM5464	SIDE CASE (L)	FOR NV-MX7
27 (1)	VMP6433	DEW SENSOR ANGLE	
28 (1)	VMP6434	GRIP BELT ANGLE	
29 (1)	VWJ1426	FRONT FLEX.	
30 (1)	VXA6768	SDC HOLDER U.	FOR NV-MX5,NV-MX7
31 (1)	VYC0833	GRIP BELT	
32 (1)	VYK9548	LENS FRAME U.	
33 (1)	VYK9596	CASSETTE COVER U.	
34 (1)	VYQ1857	POWER BUTTON U.	
35 (1)	VXA6637	OUT HOLDER U.	
36 (1)	VYK9426	BOTTOM FRAME U.	
37 (1)	VYK9597	BOTTOM COVER U.	
38 (1)	VYQ1964	MAIN FRAME (1) U.	
39 (1)	VSC5135	RADIATION RUBBER	
40 (1)	VYQ1963	MECHA. FRAME U.	
40-1(1)	VMD3345	TRIPOD FRAME	
41 (1)	VXY1591	MECHA. U.	
42 (1)	VGQ5984	MAIN FRAME BARRIER	
43 (1)	VGQ5986	BARRIER	FOR NV-MX5,NV-MX7
44 (1)	VEK8857	S/S POWER FLEX	
B1 (1)	VHD1400	SCREW	
B2 (1)	XQN16+BJ4FZ	SCREW	
B3 (1)	XQN16+B4FZ	SCREW	
B4 (1)	XQN16+BJ6FN	SCREW	
B5 (1)	XQN16+BJ4FZ	SCREW	
B6 (1)	XQN16+BJ4FZ	SCREW	
B7 (1)	XQN2+B2FZ	SCREW	

Ref. No.	Part No.	Part Name& Description	Remarks
B8 (1)	XQN16+BJ3FN	SCREW	
B9 (1)	XQN16+B4FN	SCREW	
B10 (1)	XQN16+BJ6FN	SCREW	
B11 (1)	VHD1365	SCREW	
B12 (1)	XQN16+BJ4FZ	SCREW	
B13 (1)	XQN14+B12	SCREW	
B14 (1)	XQN14+B12	SCREW	
B15 (1)	XQN14+B12	SCREW	
B16 (1)	XQN14+B12	SCREW	
B17 (1)	XQN16+B3FN	SCREW	
B18 (1)	XQN16+BJ3FN	SCREW	FOR NV-MX5,NV-MX7
B19 (1)	XQN16+BJ3FN	SCREW	
B20 (1)	XQN16+BJ4FZ	SCREW	
B21 (1)	XQN16+BJ4FZ	SCREW	
B22 (1)	VHD1353	SCREW	
B23 (1)	XQN16+BJ4FZ	SCREW	
B24 (1)	XQS16+A2	SCREW	
B25 (1)	XQN16+BJ3FN	SCREW	
B26 (1)	XQN16+BJ3FN	SCREW	
B27 (1)	XQS16+A2	SCREW	
B28 (1)	XQN16+B2FN	SCREW	
B29 (1)	VHD1384	SCREW	
B30 (1)	VHD1384	SCREW	
B31 (1)	XQN16+B2FN	SCREW	
B32 (1)	XQN16+B2FN	SCREW	
B33 (1)	XQN16+B4FZ	SCREW	
B34 (1)	XQN16+B4FZ	SCREW	
B35 (1)	XQN16+B4FZ	SCREW	
B36 (1)	XQN16+B4FZ	SCREW	
B37 (1)	XQN16+B2FN	SCREW	
B38 (1)	XQN16+B2FN	SCREW	
B39 (1)	VHD1376	SCREW	
B40 (1)	VHD1376	SCREW	
B41 (1)	XQN16+B2FN	SCREW	
B42 (1)	VHD1133	SCREW	
B43 (1)	VHD1133	SCREW	
B44 (1)	VHD1133	SCREW	
B45 (1)	XQN16+B3FN	SCREW	
B46 (1)	XQN16+BJ4	SCREW	
B47 (1)	XQN16+BJ4	SCREW	
B48 (1)	XQN16+BJ4	SCREW	
B49 (1)	XQN16+BJ4	SCREW	
B50 (1)	XQN16+BJ4	SCREW	
B51 (1)	XQN16+B4FN	SCREW	
B52 (1)	XQN16+B3FN	SCREW	
B53 (1)	XQN16+BJ4	SCREW	
B54 (1)	XQN16+BJ4FZ	SCREW	
W1 (1)	XUC2FP	WASHER	

14.2. FRAME& CASING SECTION (2) PARTS LIST

Note: 1. *Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark △ have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name& Description	Remarks
101 (2)	VKF3258	EVR COVER	
102 (2)	VGQ4625	SHOE COVER	
103 (2)	VXA6838	SHOE TERMINAL SOCKET	FOR NV-MX1,NV-MX3
103 (2)	K1FB108H0008	SHOE TERMINAL SOCKET	FOR NV-MX5,NV-MX7
104 (2)	VGQ5827	EVF FLEX.BARRIER	
105 (2)	VXA6770	EVF SLIDE U.	
106 (2)	K4ZZ04000026	BATTERY CATCHER	
107 (2)	VWJ1425	POWER BUS FLEX.	
108 (2)	VGU8582	BATTERY LOCK BUTTON	
109 (2)	VKM5425	REAR CASE	
110 (2)	VMB3210	BATTERY LOCK SPRING	
111 (2)	VDL0972	EVF LENS	
112 (2)	VGQ5832	LENS HOLDER	
113 (2)	VKM5459	EVF CASE (UPPER)	
114 (2)	VKM5428	EVF CASE (LOWER)	
115 (2)	L5BDDXZ00003	EVF LCD PANEL	
116 (2)	VDL0973	EVF REFLECTOR	
117 (2)	VEK9087	EVF-B FLEX.	
118 (2)	VGQ5654	REFLECTOR CUSHION	
119 (2)	VGQ5833	EVF PROTECT COVER	
120 (2)	VGQ5834	LCD MASK	
121 (2)	VGQ5835	PROTECT COVER SHEET	
122 (2)	VKM5429	LCD HOLD PIECE	
123 (2)	VWJ1422	EVF FLEX.	
124 (2)	VYK9540	EVF VIEW ADJ. U.	
124-1(2)	VGU8414	VIEW ADJ. KNOB	
124-2(2)	VMG1330	EYE CAP	
125 (2)	VGQ5983	TAPE	
126 (2)	L0AA02A00014	SPEAKER U.	
127 (2)	VEK9037	SUB OPERATION FLEX. U.	
128 (2)	VGQ5908	SPEAKER SHEET	
129 (2)	VGU8590	CAMERA OPERATION BUTTON	
130 (2)	VGU8653	MULTI/TITLE BUTTON	FOR NV-MX1,NV-MX3
130 (2)	VGU8591	MULTI/TITLE BUTTON	FOR NV-MX5,NV-MX7
131 (2)	VMP6457	EARTH PLATE (CAMERA OP. BUT	
132 (2)	VMP6458	HINGE REINFORCEMENT PLATE	
133 (2)	VMP6532	SPEAKER FIXING ANGLE	
134 (2)	VEK9038	CAMERA/VTR OPERATION U.	
135 (2)	VGQ5840	DV COVER HINGE	
136 (2)	VGQ5841	VTR BUTTON DECORATION	
137 (2)	VGU8586	FOUCAS BUTTON	
138 (2)	VGU8587	AUTO/MANUAL SELECT KNOB	
139 (2)	VGU8588	MENU/PAUSE BUTTON	
140 (2)	VKF3257	DV COVER	
141 (2)	VKM5462	(R) COVER	
142 (2)	VMP6454	EARTH PLATE (FOUCAS BUTTON)	
143 (2)	VMP6455	EARTH PLATE (VTR BUTTON)	
144 (2)	VMP6456	EARTH PLATE	
145 (2)	VYQ2086	VTR BUTTON U.	
146 (2)	VYK9762	(R) BASE	FOR NV-MX1,NV-MX3
146 (2)	VYK9761	(R) BASE	FOR NV-MX5,NV-MX7
147 (2)	VYK9544	MAGNET HOLDER UPPER (1) U.	
148 (2)	VYK9545	MAGNET HOLDER LOWER (1) U.	
149 (2)	VKM5100	BATTERY DUMMY CASE	FOR NV-MX3,NV-MX7DEN/A
B101 (2)	XQN2+B2FZ	SCREW	
B102 (2)	XQN2+B2FZ	SCREW	

Ref. No.	Part No.	Part Name& Description	Remarks
B103 (2)	XQN2+A3FN	SCREW	
B104 (2)	XQN2+A3FN	SCREW	
B105 (2)	XQN16+B16FN	SCREW	FOR NV-MX5,NV-MX7
B106 (2)	XQN16+B16FN	SCREW	FOR NV-MX5,NV-MX7
B107 (2)	XQN16+B4FZ	SCREW	
B108 (2)	XQN16+B2FZ	SCREW	
B109 (2)	XQN16+B4FZ	SCREW	
B110 (2)	XQN16+B4FZ	SCREW	
B111 (2)	XQN16+B4FZ	SCREW	
B112 (2)	XQN14+BJ3FZ	SCREW	
B113 (2)	XQN14+BJ3FZ	SCREW	
B114 (2)	XQN14+BJ3FZ	SCREW	
B115 (2)	XQN16+BJ4FZ	SCREW	
B116 (2)	XQN16+BJ4FZ	SCREW	
B117 (2)	VHD1377	SCREW	
B118 (2)	VHD1377	SCREW	
B119 (2)	XQN16+BJ5	SCREW	
B120 (2)	XQN16+B5FZ	SCREW	
B121 (2)	XQN14+B2	SCREW	
B122 (2)	XQN16+BJ5	SCREW	
B123 (2)	VHD1353	SCREW	
B124 (2)	XQN14+B3	SCREW	
B125 (2)	XQN14+B3	SCREW	
B126 (2)	XQN14+B3	SCREW	
B127 (2)	XQN16+BJ4FZ	SCREW	
B128 (2)	XQN16+B3FN	SCREW	
B129 (2)	XQN16+B4FZ	SCREW	
B130 (2)	XQN16+BJ4FZ	SCREW	
B131 (2)	XQN16+BJ4FZ	SCREW	
B132 (2)	XQN16+BJ3FN	SCREW	
B133 (2)	XQN16+BJ3FN	SCREW	
B134 (2)	XQN16+BJ3FN	SCREW	
B135 (2)	XQN16+BJ3FN	SCREW	
B136 (2)	XQN16+BJ6FN	SCREW	
B137 (2)	XQN16+B4FZ	SCREW	
B138 (2)	XQN16+B4FZ	SCREW	
B139 (2)	XQN16+BJ4FZ	SCREW	
B140 (2)	VHD1402	SCREW	
B141 (2)	VHD1402	SCREW	
B142 (2)	XQN16+BJ4FZ	SCREW	

14.3. LCD SECTION PARTS LIST

Note: 1. *Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark △ have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name& Description	Remarks
201 (3)	VEK8756	BACK LIGHT U.	FOR NV-MX1,NV-MX3
201 (3)	KBLUMJ127VM	BACK LIGHT U.	FOR NV-MX5,NV-MX7
202 (3)	L5BDDYM00002	MONITOR LCD PANEL	FOR NV-MX1,NV-MX3
202 (3)	L5EDDYM00001	MONITOR LCD PANEL	FOR NV-MX5,NV-MX7
203 (3)	VGL0910	POLARIZATION SHEET	FOR NV-MX1,NV-MX3
203 (3)	VGL0896	POLARIZATION SHEET	FOR NV-MX5,NV-MX7
204 (3)	VGL0911	DIFFUSION SHEET	FOR NV-MX1,NV-MX3
204 (3)	VGL0900	DIFFUSION SHEET	FOR NV-MX5,NV-MX7
205 (3)	VGQ4180	PROTECT SHEET	
206 (3)	VGQ4758	PROTECT SHEET	
207 (3)	VGQ4758	PROTECT SHEET	
208 (3)	VGQ5844	LCD PROTECT SHEET	
209 (3)	VKM5491	LCD CASE (LOWER)	FOR NV-MX1,NV-MX3
209 (3)	VKM5433	LCD CASE (LOWER)	FOR NV-MX5,NV-MX7
210 (3)	VMP6459	FIXING PLATE	
211 (3)	VSC5134	LCD SHIELD CASE	FOR NV-MX1,NV-MX3
211 (3)	VSC5103	LCD SHIELD CASE	FOR NV-MX5,NV-MX7
212 (3)	VGQ5686	HINGE COVER (LOWER)	
213 (3)	VGQ5845	HINGE COVER (UPPER)	
214 (3)	VXD0329	LCD HINGE (1)U.	
214-1(3)	VWJ1423	MONITOR FLEX. (A)	
214-2(3)	VWJ1424	MONITOR FLEX. (B)	
215 (3)	VYK9625	LCD CASE (UPPER)U.	FOR NV-MX1
215 (3)	VYK9715	LCD CASE (UPPER)U.	FOR NV-MX3
215 (3)	VYK9593	LCD CASE (UPPER)U.	FOR NV-MX5
215 (3)	VYK9707	LCD CASE (UPPER)U.	FOR NV-MX7
216 (3)	VGQ6064	LCD SHEET	FOR NV-MX1,NV-MX3
217 (3)	VEK9086	HOLE SENSOR FLEX.	
B201 (3)	VHD1209	SCREW	
B202 (3)	VHD1209	SCREW	
B203 (3)	XQN16+B25FN	SCREW	
B204 (3)	VHD1393	SCREW	
B205 (3)	VHD1393	SCREW	
B206 (3)	VHD1209	SCREW	
B207 (3)	VHD1209	SCREW	
B208 (3)	XQN16+B25FN	SCREW	

14.4. CAMERA LENS SECTION PARTS LIST

Note: 1. *Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark △ have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name& Description	Remarks
301 (4)	VDL1110-A	CRYSTAL FILTER	
302 (4)	VEK9080	CCD U.	
302-1 (4)	VJB22302	CCD FLEX.	
303 (4)	VMX2758	CCD CUSHION	
304 (4)	VXW0487	LENS U.	
304-1 (4)	CNA1312K01VT	PHOTOSENSOR	
304-2 (4)	VEK8449	MR SENSOR U.	
304-3 (4)	VEK9079	LENS FLEX.	
304-4 (4)	VEM0729	ZOOM MOTOR U.	
304-5 (4)	VMA9961	SIDE YOKE	
304-6 (4)	VMS6812	GUIDE POLE	
304-7 (4)	VMS6812	GUIDE POLE	
304-8 (4)	VXL3015	IRIS U.	
304-9 (4)	VXP2063	4TH MOVING FRAME U.	
304-10(4)	VXP2064	2ND MOVING FRAME U.	
304-11(4)	VXQ0965	MAIN FRAME U.	
304-12(4)	VXQ0968	3RD MOVING FRAME U.	
304-13(4)	VXQ0969	MASTER FLANGE	
B301 (4)	XQN16+CJ4FY	SCREW	
B302 (4)	XQN16+CJ4FY	SCREW	
B303 (4)	XQN16+CJ4FY	SCREW	
B304 (4)	XQN16+BJ5	SCREW	
B305 (4)	XQN16+BJ5	SCREW	
B306 (4)	XQN16+BJ5	SCREW	
B307 (4)	XQN16+BJ5	SCREW	
B308 (4)	XQN16+BJ5	SCREW	
B309 (4)	XQN16+BJ8	SCREW	
B310 (4)	XQN16+BJ8	SCREW	
B311 (4)	XQN16+BJ8	SCREW	

14.5. PACKING PARTS& ACCESSORIES SECTION PARTS LIST

Note: 1. *Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark △ have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name& Description	Remarks
401 (5)	VPN5399	SPACER PAD	FOR NV-MX1,NV-MX3
402 (5)	VQT8897	OPERATING INSTRUCTIONS (GERMAN,FRENCH)	FOR NV-MX1EG,NV-MX5EG,NV-MX7EG⚠
402 (5)	VQT8898	OPERATING INSTRUCTIONS (ITALIAN,DUTCH)	FOR NV-MX1EG,NV-MX5EG,NV-MX7EG⚠
402 (5)	VQT8899	OPERATING INSTRUCTIONS (GERMAN,SPANISH)	FOR NV-MX1EGM,NV-MX5EGM,NV-MX7EGM⚠
402 (5)	VQT8900	OPERATING INSTRUCTIONS (SWEDISH,DANISH)	FOR NV-MX1EGM,NV-MX5EGM,NV-MX7EGM⚠
402 (5)	VQT8901	OPERATING INSTRUCTIONS (ENGLISH)	FOR NV-MX1B,NV-MX5B,NV-MX7B⚠
402 (5)	VQT8902	OPERATING INSTRUCTIONS (ENGLISH,CHINESE)	FOR NV-MX3EN/A,NV-MX7DEN/A⚠
402 (5)	VQT8903	OPERATING INSTRUCTIONS (ARABIC,RUSSIAN)	FOR NV-MX3EN,NV-MX7DEN⚠
403 (5)	VJA0664	AC CODE	K2CR2DA00004 FOR NV-MX1EG/EGM,NV-MX5EG/EGM,NV-MX7EG/EGM⚠
403 (5)	VJA0940	AC CODE	FOR NV-MX1B,NV-MX3EN,NV-MX5B,NV-MX7B/DEN⚠
403 (5)	VJA0754	AC CODE	K2CJ2DA00002 FOR NV-MX3A,NV-MX7A⚠
404 (5)	VEK8925	DC CABLE	K2GJ2DZ00010
405-1(5)	K2KC4CB00001	AV CABLE	
405-2(5)	VJA1120	S-VIDEO CABLE	K2KZ9BA00001
406 (5)	VFA0324	MMC U.	FOR NV-MX5,NV-MX7
407 (5)	VFC3506	SHOULDER BELT	
408 (5)	VGQ5138	HOOD STRAP	
409 (5)	VYP7852	HOOD CAP U.	
410 (5)	VYQ1988	LENS HOOD U.	
411 (5)	VFK1451	HEAD CLEANER	
412 (5)	VPK2418	PACKING	FOR NV-MX1EG
412 (5)	VPK2419	PACKING	FOR NV-MX1EGM
412 (5)	VPK2420	PACKING	FOR NV-MX1B
412 (5)	VPK2421	PACKING	FOR NV-MX3EN
412 (5)	VPK2421	PACKING	FOR NV-MX3A
412 (5)	VPK2410	PACKING	FOR NV-MX5EG
412 (5)	VPK2411	PACKING	FOR NV-MX5EGM
412 (5)	VPK2412	PACKING	FOR NV-MX5B
412 (5)	VPK2415	PACKING	FOR NV-MX7EG
412 (5)	VPK2416	PACKING	FOR NV-MX7EGM
412 (5)	VPK2417	PACKING	FOR NV-MX7B
412 (5)	VPK2413	PACKING	FOR NV-MX7DEN
412 (5)	VPK2414	PACKING	FOR NV-MX7A
413 (5)	VPN5472	CUSHION (UPPER)	
414 (5)	VPN5473	CUSHION (LOWER)	
415 (5)	BN-SDCAAE	SD/MMC EXTERNAL DRIVE	FOR NV-MX7DEN
416 (5)	VFF0093-S	DRIVER SOFT	FOR NV-MX7DEN
417 (5)	N2QAEC000003	REMOTE CONTROLLER	FOR NV-MX1,NV-MX3
417 (5)	N2QAEC000002	REMOTE CONTROLLER	FOR NV-MX5,NV-MX7

14.6. ELECTRICAL REPLACEMENT PARTS LIST

Note: 1. Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE: Components identified with the mark △ have the special characteristics for safety. When replacing any of these components, use only the same type.
3. Unless otherwise specified.
All resistors are in OHMS, K=1,000 OHMS. All capacitors are in MICROFARADS (uf), P=uuF.
4. The P.C. Board units marked width "■" show below the main assembled parts.
5. The marking (RTL) indicaters the retention time is limited for this item.
After the discontinuation of this assembly in production, it will no longer be available.

Ref. No.	Part No.	Part Name& Description	Remarks
■	VEP03F58BS	MAIN C.B.A.	(RTL) NV-MX5EG/EGM/B
■	VEP03F58CS	MAIN C.B.A.	(RTL) NV-MX7EG/EGM/B/DEN/A
■	VEP03F58D	MAIN C.B.A.	(RTL) NV-MX1EG/EGM/B
■	VEP03F58E	MAIN C.B.A.	(RTL) NV-MX3EN/A
■	VEP23519B	CAMERA C.B.A.	(RTL) NV-MX5EG/EGM/B
■	VEP23519C	CAMERA C.B.A.	(RTL) NV-MX7EG/EGM/B/DEN/A
■	VEP23519D	CAMERA C.B.A.	(RTL) NV-MX1EG/EGM/B,NV-MX3EN/A
■	VEP28278A	EVF (A) C.B.A.	(RTL)
■	VEP06D86A	GRIP C.B.A.	(RTL) NV-MX5EG/EGM/B,NV-MX7EG/EGM/B/DEN/A
■	VEP06D86B	GRIP C.B.A.	(RTL) NV-MX1EG/EGM/B,NV-MX3EN/A
■	VEP06D43B	GRIP FLEX. CARD	
■	VEP27212B	FRONT (B) C.B.A.	(RTL)
■	VEP000P0A	SD FLEX. CARD	NV-MX5EG/EGM/B,NV-MX7EG/EGM/B/DEN/A
■	VEP26242A	MONITOR C.B.A.	(RTL) NV-MX5EG/EGM/B,NV-MX7EG/EGM/B/DEN/A
■	VEP26242B	MONITOR C.B.A.	(RTL) NV-MX1EG/EGM/B,NV-MX3EN/A
■	VEP22302	CCD FLEX. CARD C.B.A.	(RTL)
■	VEK9211	MIC UNIT	(RTL)
■	VEP03F58BS	MAIN C.B.A.	(RTL) NV-MX5EG/EGM/B
■	VEP03F58CS	MAIN C.B.A.	(RTL) NV-MX7EG/EGM/B/DEN/A
■	VEP03F58D	MAIN C.B.A.	(RTL) NV-MX1EG/EGM/B
■	VEP03F58E	MAIN C.B.A.	(RTL) NV-MX3EN/A
FP1002	VJS4322A014	CONNECTOR (FEMALE) 14P	
FP2201	VJS4012B018	CONNECTOR (FEMALE) 18P	
FP2202	VJS4273B010	CONNECTOR (FEMALE) 10P	
FP2203	VJS4298B018	CONNECTOR (FEMALE) 18P	
FP2204	VJS4273B008	CONNECTOR (FEMALE) 8P	
FP2205	VJS3971B033	CONNECTOR (FEMALE) 33P	
FP2206	K1MN18A00031	CONNECTOR	
FP3401	K1MN18A00031	CONNECTOR	NV-MX5,MX7
FP4001	K1MN57B00001	CONNECTOR	
FP5001	VJS3931B008	CONNECTOR (FEMALE) 8P	
FP601	VJS3971B021	CONNECTOR (FEMALE) 21P	
FP602	VJS3971B017	CONNECTOR (FEMALE) 17P	
FP603	VJS3971B021	CONNECTOR (FEMALE) 21P	
PP2001	K1KA20A00207	CONNECTOR	
PP3001	K1KB60A00067	CONNECTOR	
PS3004	K1KAC0A00015	CONNECTOR	
■	VEP23519B	CAMERA C.B.A.	(RTL) NV-MX5EG/EGM/B
■	VEP23519C	CAMERA C.B.A.	(RTL) NV-MX7EG/EGM/B/DEN/A
■	VEP23519D	CAMERA C.B.A.	(RTL) NV-MX1EG/EGM/B,NV-MX3EN/A
FP301	VJS3971B017	CONNECTOR (FEMALE) 17P	

Ref. No.	Part No.	Part Name& Description	Remarks
FP701	VJS3971B027	CONNECTOR (FEMALE) 27P	
PP301	VJP4263A120	CONNECTOR (MALE)	
PS201	VJS4009A020	CONNECTOR (FEMALE) 20P	K1KB20A00084
■	VEP28278A	EVF (A) C.B.A.	(RTL)
C802	ECUM1A226MBP	C.CAPACITOR CH 10V 22U	
FP801	VJS4013B019	CONNECTOR (FEMALE) 19P	
FP802	VJS4353B016	CONNECTOR (FEMALE) 16P	
L881	VLQ0779K100	COIL 10UH	G1C100KA0005
Q881	2SK2055	TRANSISTOR	
T881	ETJ11K90AM	CHIP TRANSFORMER	ETJ11K90AM
■	VEP06D86A	GRIP C.B.A.	(RTL) NV-MX5EG/EGM/B,NV-MX7EG/EGM/B/DEN/A
■	VEP06D86B	GRIP C.B.A.	(RTL) NV-MX1EG/EGM/B,NV-MX3EN/A
D6101	CL190UR	DIODE	
D6102	SML-310MT	LED	B3ABB0000091
D6103	SML-310DT	LED	NV-MX5,NV-MX7 B3ADB0000026
D6104	CL190UR	DIODE	NV-MX5,NV-MX7
FP6101	VJS4036B008	CONNECTOR (FEMALE) 8P	
FP6102	VJS4298B008	CONNECTOR (FEMALE) 8P	
FP6103	VJS3971B033	CONNECTOR (FEMALE) 33P	
R6101	ERJ6GEYJ331	M.RESISTOR CH 1/10W 330	
S6104	VSS0392	SLIDE SWITCH	NV-MX5,NV-MX7 K0D112B00074
S6201	VSP0584	SWITCH	NV-MX5,NV-MX7
S6202	VSP1102	SWITCH	K0H1BA000260
.	VSB0407	BATTERY	
■	VEP06D43B	GRIP FLEX. CARD	
S6211	VSP0584	SWITCH	
S6212	VSP0584	SWITCH	
■	VEP27212B	FRONT (B) C.B.A.	(RTL)
C471	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C6403	ECST0JY226Z	T.CAPACITOR CH 6.3V 22U	
D451	02DZ6.2YTPH3	DIODE	B0BC6R100014
D452	02DZ6.2YTPH3	DIODE	B0BC6R100014
D453	02DZ6.2YTPH3	DIODE	B0BC6R100014
FP451	VJS3971B027	CONNECTOR (FEMALE) 27P	
FP452	VJS3320B005	CONNECTOR (FEMALE) 5P	
JK2501	VJJ0552	JACK (4-PIN)	K2HC104E0002
JK3801	VJJ0568	RCA JACK	
JK6401	VJJ0667	JACK (8-PIN)	K2HZ108B0003
L6402	G1C100KA0023	CHIP INDUCTOR	
LB451	VLF1143A601	COIL 600UH	
LB453	VLF1143A121	COIL 120UH	
LB454	VLF1143A121	COIL 120UH	
LB6401	VLF1315A102	CHIP BEAD	⚠
LB6402	VLF1315A102	CHIP BEAD	⚠
LB6405	VLF1315A102	CHIP BEAD	⚠

Ref. No.	Part No.	Part Name& Description	Remarks
LB6406	VLF1315A102	CHIP BEAD	⚠
LB6407	VLF1143A601	COIL 600UH	
R451	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	
R2501	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	
R2502	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	
R2503	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	
R2504	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	
R2506	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	
■	VEP000P0A	SD FLEX. CARD	NV-MX5EG/EGM/B,NV-MX7EG/EGM/B/DEN/A
HS3401	K1NA09E00002	CONNECTOR	
■	VEP26242A	MONITOR C.B.A.	(RTL) NV-MX5EG/EGM/B,NV-MX7EG/EGM/B/DEN/A
■	VEP26242B	MONITOR C.B.A.	(RTL) NV-MX1EG/EGM/B,NV-MX3EN/A
C901	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C902	ECST0GY476Z	T.CAPACITOR CH 4V 47U	
C903	ECST0JY226Z	T.CAPACITOR CH 6.3V 22U	
C904	ECUX0J105KBV	C.CAPACITOR CH 50V 1U	
C905	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C906	ECUM1C106VB	C.CAPACITOR CH 16V 10U	
C907	ECST0JY335	T.CAPACITOR CH 6.3V 3.3U	
C908	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C909	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C910	ECUX0J474KBV	C.CAPACITOR CH 6.3V 0.47U	
C911	ECUX0J474KBV	C.CAPACITOR CH 6.3V 0.47U	
C912	ECUX0J474KBV	C.CAPACITOR CH 6.3V 0.47U	
C913	ECUX0J474KBV	C.CAPACITOR CH 6.3V 0.47U	
C914	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C915	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	
C916	ECUX0J105KBV	C.CAPACITOR CH 50V 1U	
C917	ECUX0J105KBV	C.CAPACITOR CH 50V 1U	
C918	ECUX0J105KBV	C.CAPACITOR CH 50V 1U	
C919	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C923	ECUX1H471GCV	C.CAPACITOR CH 50V 470P	
C924	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	
C925	ECST1CX106Z	T.CAPACITOR CH 16V 10U	
C926	ECUX1A334KBV	C.CAPACITOR CH 10V 0.33U	
C930	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C931	ECUX1H390JCQ	C.CAPACITOR CH 50V 39P	
C932	ECUX1H221JCQ	C.CAPACITOR CH 50V 220P	
C934	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C935	ECUX1C682KBQ	C.CAPACITOR CH 16V 6800P	
C936	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C937	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C938	ECUX1H101JCQ	C.CAPACITOR CH 50V 100P	
C939	ECUX1H331GCV	C.CAPACITOR CH 50V 330P	
C940	ECUX1H560JCQ	C.CAPACITOR CH 50V 56P	
C941	ECUX1H100CCQ	C.CAPACITOR CH 50V 10P	
C942	ECUM1A105KBN	C.CAPACITOR CH 10V 1U	F1J1A1050002
C943	ECUX1A224KBV	C.CAPACITOR CH 10V 0.22U	
C944	ECUX1A224KBV	C.CAPACITOR CH 10V 0.22U	
C945	ECUX1E332KBQ	C.CAPACITOR CH 25V 3300P	

Ref. No.	Part No.	Part Name& Description	Remarks
C946	ECUM1C106VB	C.CAPACITOR CH 16V 10U	
C947	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	
C948	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	
C950	ECUM1C105KBP	C.CAPACITOR CH 16V 1U	
C951	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	
D901	MA338	DIODE	
D902	MA6S121	DIODE	
D903	MA132WA	DIODE	
D904	MA159A	DIODE	
D905	1SS388	DIODE	
D906	1SS388	DIODE	
D907	MA111	DIODE	
FP901	VJS4194B026	CONNECTOR (FEMALE) 26P	NV-MX5,NV-MX7
FP902	VJS4194B026	CONNECTOR (FEMALE) 26P	NV-MX1,NV-MX3
FP903	VJS3971B021	CONNECTOR (FEMALE) 21P	
FP904	VJS3971B017	CONNECTOR (FEMALE) 17P	
FP905	VJS3319B006	CONNECTOR (FEMALE) 6P	
IC901	C0HBA0000053	IC	
IC903	AHC1G04DCK	IC	C0JBAB000350
IC904	SN32461DCK	IC	C0JBAB000391
IC905	SN74LV04APW	IC	C0JBAB000247
L901	VLQ0807K100	COIL 10UH	G1C100K00024
L902	VLQ0807K100	COIL 10UH	G1C100K00024
L903	VLQ0807K100	COIL 10UH	G1C100K00024
L904	VLQ0807K100	COIL 10UH	G1C100K00024
L907	VLQ0426J3R3	COIL 3.3UH	G1C3R3J00009
Q901	2SC4738FY	TRANSISTOR	
Q902	2SK3065T100	TRANSISTOR	B1CFNG000001
Q904	XP1501	TRANSISTOR-TRANSISTOR	
Q905	2SA1036	TRANSISTOR	
QR901	DTC144TH	DIGITAL TRANSISTOR	
QR902	DTC144TH	DIGITAL TRANSISTOR	
QR903	DTC114YH	DIGITAL TRANSISTOR	
R901	ERJ2RHD182	M.RESISTOR CH 1/16W 1.8K	
R902	ERJ2RHD182	M.RESISTOR CH 1/16W 1.8K	
R903	ERJ2RHD182	M.RESISTOR CH 1/16W 1.8K	
R904	ERJ2GEJ154	M.RESISTOR CH 1/16W 150K	
R907	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R908	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R909	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R910	ERJ2GEJ332	M.RESISTOR CH 1/16W 3.3K	
R911	ERJ2GEJ332	M.RESISTOR CH 1/16W 3.3K	
R912	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	
R913	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	
R914	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	
R915	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R916	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R917	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R918	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R919	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R920	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R921	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	
R922	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	
R923	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	
R924	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R925	ERJ2RHD104	M.RESISTOR CH 1/16W 100K	
R926	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	

[illegible]	[illegible]	[illegible]	

Ref. No.	Part No.	Part Name& Description	Remarks
R927	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	
R928	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R929	ERJ2GEJ122	M.RESISTOR CH 1/16W 1.2K	
R930	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R931	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R932	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R933	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	
R935	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R936	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R937	ERJ2RHD182	M.RESISTOR CH 1/16W 1.8K	
R938	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	
R939	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R940	ERJ2RMJ153	M.RESISTOR CH 1/16W 15K	
R941	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R942	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R943	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R944	ERJ2GEJ474	M.RESISTOR CH 1/16W 470K	
R945	ERJ2RHD683	M.RESISTOR CH 1/16W 68K	
R946	ERJ2RHD563	M.RESISTOR CH 1/16W 56K	
R947	ERJ2RHD393	M.RESISTOR CH 1/16W 39K	
R948	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R949	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R951	ERJ2GEJ560	M.RESISTOR CH 1/16W 56	
R952	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	
R953	ERJ3GEYJ823	M.RESISTOR CH 1/16W 82K	
R954	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	
R955	ERJ3RBD333	M.RESISTOR CH 1/16W 33K	
R956	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	
R957	ERJ3RBD101	M.RESISTOR CH 1/16W 100	
R958	ERJ2RMJ153	M.RESISTOR CH 1/16W 15K	
R959	ERJ2GEJ272	M.RESISTOR CH 1/16W 2.7K	
R960	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	
R961	ERJ2RMJ153	M.RESISTOR CH 1/16W 15K	
R962	ERJ2GEJ561	M.RESISTOR CH 1/16W 560	
R963	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	
R964	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	
R965	ERJ2GEJ563	M.RESISTOR CH 1/16W 56K	
R966	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	NV-MX5,NV-MX7
R966	ERJ2GEJ152	M.RESISTOR CH 1/16W 1.5K	NV-MX1,NV-MX3
R967	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	
R968	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	
R969	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	
R970	ERJ2GEJ562	M.RESISTOR CH 1/16W 5.6K	
R971	ERJ3GEYJ335	M.RESISTOR CH 1/16W 3.3M	
R972	ERJ2GEJ224	M.RESISTOR CH 1/16W 220K	
R973	ERJ8GEYJ335	M.RESISTOR CH 1/8W 3.3M	
R974	ERJ8GEYJ335	M.RESISTOR CH 1/8W 3.3M	
R975	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	
R976	ERJ3RBD511	M.RESISTOR CH 1/16W 510	NV-MX5,NV-MX7
R976	ERJ3RBD621	M.RESISTOR CH 1/16W 620	NV-MX1,NV-MX3
R977	ERJ3RED180	M.RESISTOR CH 1/16W 18	
R978	ERJ6GEYJ335	M.RESISTOR CH 1/10W 3.3M	
R979	ERJ3GEYJ224	M.RESISTOR CH 1/16W 220K	
R985	ERJ2RHD182	M.RESISTOR CH 1/16W 1.8K	
R986	ERJ2RHD182	M.RESISTOR CH 1/16W 1.8K	
T901	ETJ09K49AZ	CHIP TRANSFORMER	
T902	EFTU21R203	TRANSFORMER	

[illegible]	[illegible]	[illegible]	

Ref. No.	Part No.	Part Name& Description	Remarks
W901	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	
■	VEP22302	CCD FLEX. CARD C.B.A.	(RTL)
C294	ECST1VX225	T.CAPACITOR CH 35V 2.2U	
C295	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	
D291	MA143	DIODE	MA3J14300L
PP291	VJP4009A020	CONNECTOR (MALE)	
Q291	2SC4627J-C	TRANSISTOR	
R292	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	
.	VJB22302	CCD FLEX. CARD	
■	VEK9211	MIC UNIT	(RTL)
C491	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C492	ECUX1A224KBV	C.CAPACITOR CH 10V 0.22U	
C493	ECUX1A224KBV	C.CAPACITOR CH 10V 0.22U	
C4801	ECUX1C153KBQ	C.CAPACITOR CH 16V 0.015U	
C4802	ECUX1A473KBQ	C.CAPACITOR CH 10V 0.047U	
C4803	ECUX1C333KBQ	C.CAPACITOR CH 16V 0.033U	
C4804	ECUX1E471KBQ	C.CAPACITOR CH 25V 470P	
C4805	ECUX1A154KBV	C.CAPACITOR CH 10V 0.15U	
C4806	ECUX1C153KBQ	C.CAPACITOR CH 16V 0.015U	
C4807	ECUX1A473KBQ	C.CAPACITOR CH 10V 0.047U	
C4808	ECUX1E471KBQ	C.CAPACITOR CH 25V 470P	
C4809	ECUX1A154KBV	C.CAPACITOR CH 10V 0.15U	
C4810	ECUX1C333KBQ	C.CAPACITOR CH 16V 0.033U	
C4812	F1J0J475A006	CERAMIC CAPACITOR	
C4813	ECUX1A473KBQ	C.CAPACITOR CH 10V 0.047U	
C4814	ECUX1C822KBQ	C.CAPACITOR CH 16V 8200P	
C4815	F1J0J475A006	CERAMIC CAPACITOR	
C4816	ECUX1C822KBQ	C.CAPACITOR CH 16V 8200P	
C4817	VCS0JP106	E.CAPACITOR 6.3V 10U	
C4818	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C4819	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C4820	ECUX1E471KBQ	C.CAPACITOR CH 25V 470P	
C4821	ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	
C4822	F1J0J475A006	CERAMIC CAPACITOR	
C4823	ECUX0J105KBV	C.CAPACITOR CH 50V 1U	
C4901	ECUX1E222KBQ	C.CAPACITOR CH 25V 2200P	
C4902	ECUX1E222KBQ	C.CAPACITOR CH 25V 2200P	
C4903	ECUX0J105KBV	C.CAPACITOR CH 50V 1U	
C4905	ECST0JY226Z	T.CAPACITOR CH 6.3V 22U	
C4908	ECUX0J105KBV	C.CAPACITOR CH 50V 1U	
C4910	ECST0JY226Z	T.CAPACITOR CH 6.3V 22U	
C4911	VCS0JP106	E.CAPACITOR 6.3V 10U	
C4912	ECUX0J105KBV	C.CAPACITOR CH 50V 1U	
C4914	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C4915	ECUX1C123KBQ	C.CAPACITOR CH 16V 0.012U	
C4916	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C4917	ECUX1C123KBQ	C.CAPACITOR CH 16V 0.012U	
C4950	ECUX1E472KBQ	C.CAPACITOR CH 25V 4700P	
C4951	ECUX1E472KBQ	C.CAPACITOR CH 25V 4700P	
C4959	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C4960	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C6401	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	

Ref. No.	Part No.	Part Name& Description	Remarks
C6402	ECST0JY226Z	T.CAPACITOR CH 6.3V 22U	
D491	MA132WA	DIODE	
D6801	CL170HR-CD	DIODE	
D6802	PH310	DIODE	
FL4901	VLF1486A206	FILTER	
FL4902	VLF1486A206	FILTER	
FP4901	K1MN22A00024	CONNECTOR	
FP4902	VJS3319B006	CONNECTOR (FEMALE) 6P	
IC4801	NJM2112V	IC	
IC4802	NJM2172V	IC	
IR6401	PNA4611M05VT	IR RECEIVER	
JK4901	VJJ0414	MIC JACK	K2HC105E0003
JK4902	VJJ0668	AV JACK (4-PIN)	K2HC106B0005
LB4901	VLP0329A121	CHIP BEAD	
LB4902	VLP0330A102	CHIP BEAD	J0JAC0000011
LB4903	VLP0359A102	CHIP BEAD	
LB4905	VLP0357A601	CHIP BEAD	
LB4906	VLP0357A601	CHIP BEAD	
M4801	WM-61A102A	MICROPHONE	
M4802	WM-61A102A	MICROPHONE	
Q491	2SC3295A	TRANSISTOR	
Q492	2SD2216	TRANSISTOR	
Q4805	2SD2216	TRANSISTOR	
Q4810	2SD2216	TRANSISTOR	
Q4811	2SD2216	TRANSISTOR	
Q4901	2SD2216	TRANSISTOR	
Q4902	2SB1218A	TRANSISTOR	
Q4903	2SD2216	TRANSISTOR	
Q4904	2SB1218A	TRANSISTOR	
Q4905	2SD2216	TRANSISTOR	
Q4906	2SD2216	TRANSISTOR	
Q4907	2SD2216	TRANSISTOR	
QR4903	UN9212	TRANSISTOR-RESISTOR	
QR4904	UN9212	TRANSISTOR-RESISTOR	
R491	ERJ3GEYJ225	M.RESISTOR CH 1/16W 2.2K	
R492	ERJ2GEJ334	M.RESISTOR CH 1/16W 330K	
R493	ERJ2GEJ822	M.RESISTOR CH 1/16W 8.2K	
R494	ERJ2GEJ182	M.RESISTOR CH 1/16W 1.8K	
R495	ERJ3GEYJ106	M.RESISTOR CH 1/16W 10M	
R4801	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	
R4802	ERJ6GEYJ392	M.RESISTOR CH 1/10W 3.9K	
R4803	ERJ6GEYJ392	M.RESISTOR CH 1/10W 3.9K	
R4805	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	
R4806	ERJ2GEJ683	M.RESISTOR CH 1/16W 68K	
R4807	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	
R4808	ERJ2GEJ683	M.RESISTOR CH 1/16W 68K	
R4809	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R4810	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R4811	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	
R4812	ERJ2GEJ683	M.RESISTOR CH 1/16W 68K	
R4813	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	
R4814	ERJ2GEJ683	M.RESISTOR CH 1/16W 68K	
R4815	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R4816	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R4817	ERJ2GEJ563	M.RESISTOR CH 1/16W 56K	
R4818	ERJ2GEJ563	M.RESISTOR CH 1/16W 56K	
R4821	ERJ2GEJ683	M.RESISTOR CH 1/16W 68K	

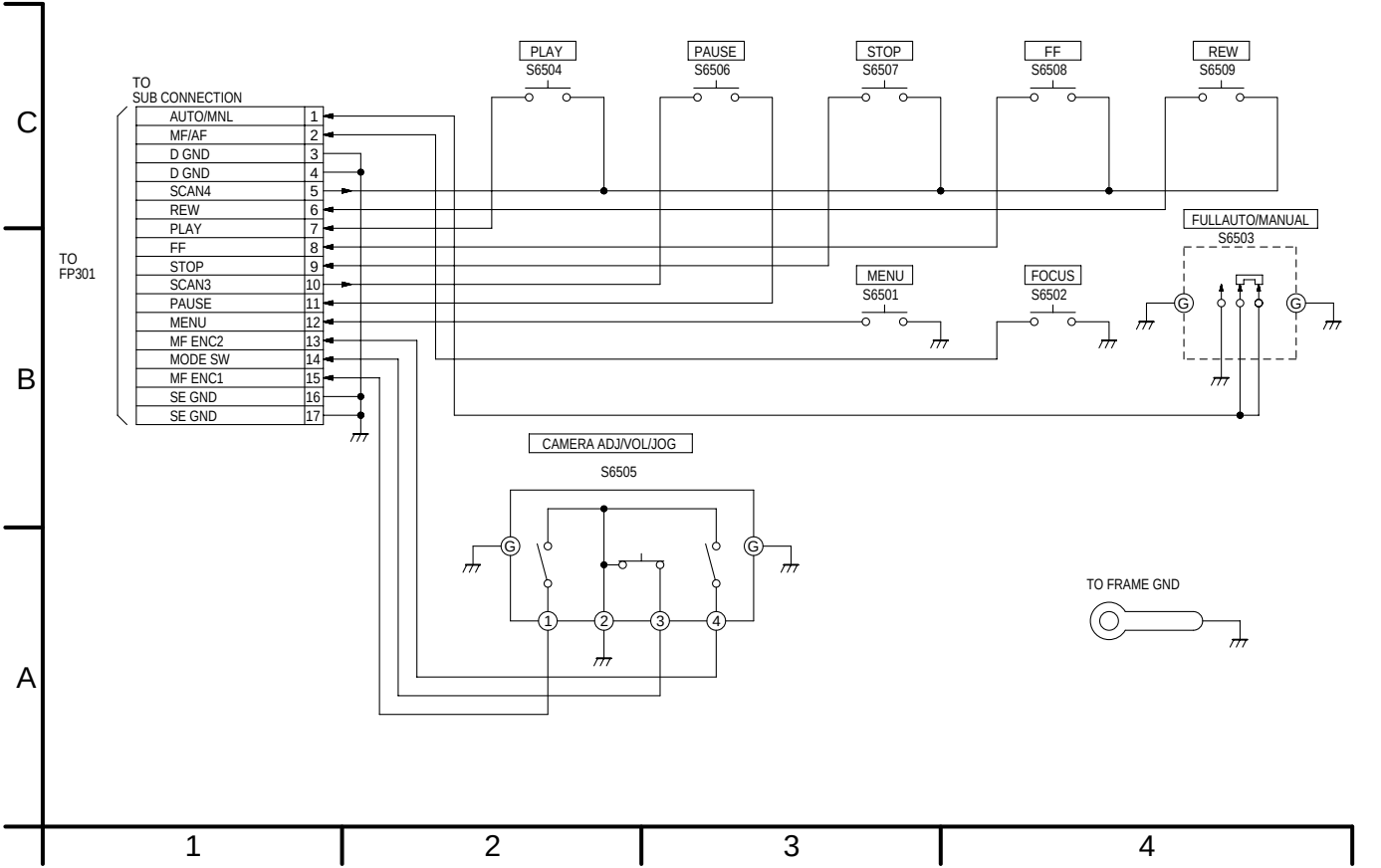
Ref. No.	Part No.	Part Name& Description	Remarks
R4822	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R4823	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	
R4824	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	
R4825	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	
R4826	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R4833	ERJ2GEJ683	M.RESISTOR CH 1/16W 68K	
R4834	ERJ2GEJ683	M.RESISTOR CH 1/16W 68K	
R4860	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	
R4861	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	
R4863	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	
R4864	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	
R4901	ERJ3GEYG682	M.RESISTOR CH 1/16W 6.8K	
R4902	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	
R4903	ERJ3GEYG682	M.RESISTOR CH 1/16W 6.8K	
R4904	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	
R4905	ERJ2GEJ471	M.RESISTOR CH 1/16W 470	
R4906	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	
R4907	ERJ6GEYJ154	M.RESISTOR CH 1/10W 150K	
R4908	ERJ6GEYJ563	M.RESISTOR CH 1/10W 56K	
R4909	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R4910	ERJ2GEJ562	M.RESISTOR CH 1/16W 5.6K	
R4911	ERJ2GEJ151	M.RESISTOR CH 1/16W 150	
R4912	ERJ2GEJ471	M.RESISTOR CH 1/16W 470	
R4913	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	
R4914	ERJ6GEYJ154	M.RESISTOR CH 1/10W 150K	
R4915	ERJ6GEYJ563	M.RESISTOR CH 1/10W 56K	
R4916	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R4917	ERJ2GEJ562	M.RESISTOR CH 1/16W 5.6K	
R4918	ERJ2GEJ151	M.RESISTOR CH 1/16W 150	
R4919	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	
R4920	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R4923	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	
R4924	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	
R4925	ERJ2GEJ273	M.RESISTOR CH 1/16W 27K	
R4926	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	
R4927	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	
R4928	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	
R4929	ERJ2GEJ273	M.RESISTOR CH 1/16W 27K	
R4930	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	
R4934	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	
R4935	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R4950	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	
R4951	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	
R4999	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	
R6402	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	
R6803	ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	
VZ4901	VRT0158	TRANSIENT/SURGE ABSORBER	D4ED12710002
.	VSC5091	FRONT SHIELD CASE	

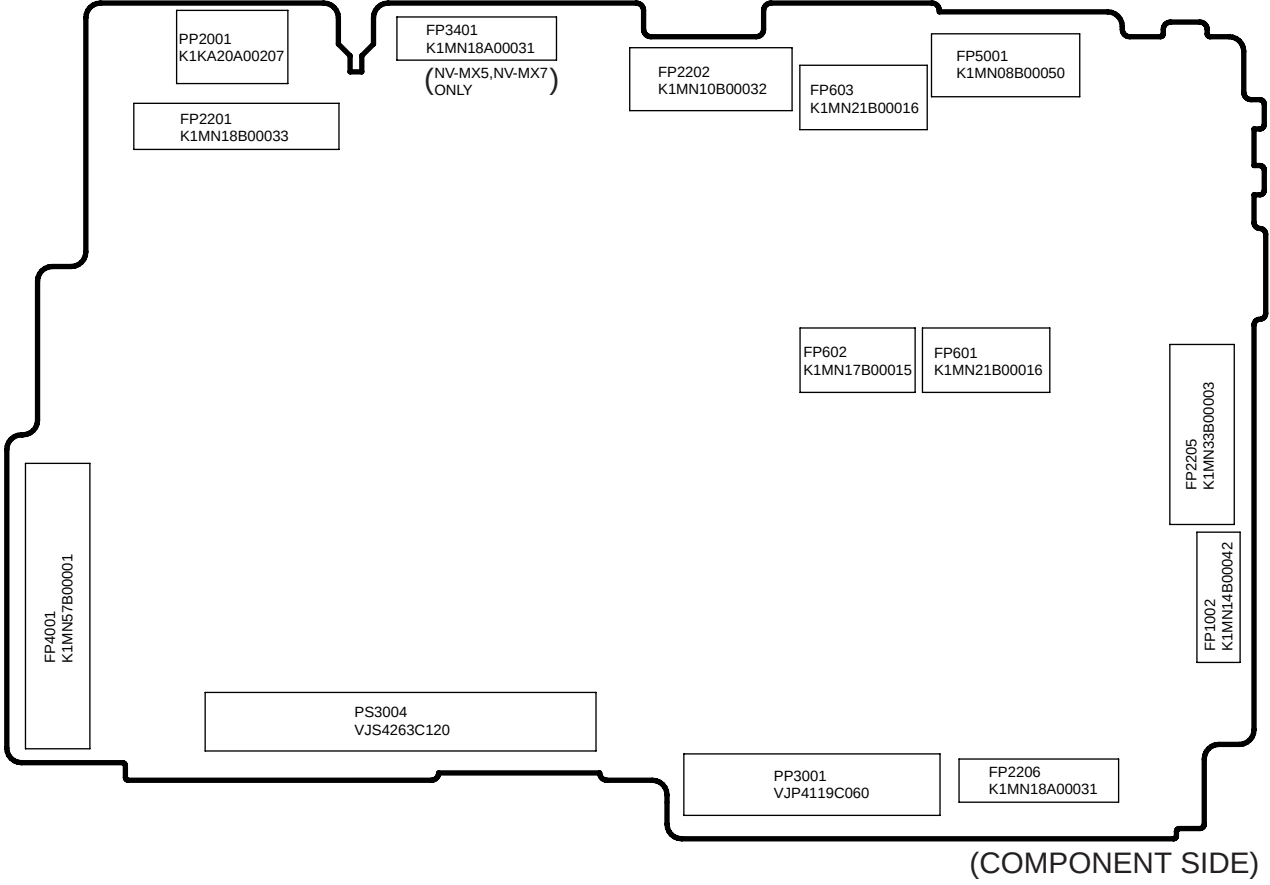
	INITIAL/LOGO	ABBREVIATIONS
A	A GND	Analogue GND
	A HASW	Audio Head Amp Switching Pulse
	A HSW	Audio Switching Pulse
	A MUTE	Audio Mute
	A ORP	Audio Overlap Pulse
	A. TR	Auto Tracking
	A0-8, 0-17	Memory Address
	A3V2	AD Converter Reference Voltage
	AB0-4	Address Bus
	AB0-4, AB12-15	Address Bus Line 0-4, 12-15
	ABSF	Focus Encoder Input
	ACI	Analogue Channel Cording IC
	AD	AD Converter
	AD	Auto Date, Analogue Digital Converter
	AD CLK	AD Clock
	AD REC	Audio Delayed REC
	AD0-6	Address
	AD0-6, ADR0-6	Address Data Line
	ADCLK	Analogue Digital Converter Clock
	ADCNT	Analogue Digital Control
	ADCS	Analogue Digital Chip Select
	A-DET	Audio Detect
	ADREC	Audio Delaied Rec
	ADUB	Audio Dubbing
	AE	Auto Expose
	AECNT	Auto Expose Control
	AEE(H)	Audio E-E (H)
	AEH	Audio Erase Head
	AEIRQ	Auto Expose Interrupt Request
	AF/MF	Auto Focus/Manual Focus
	AF DIS CS	AF DIS Chip Select
	A-FADE(L)	Audio Fade (L)
	AF-AMP	AF HALL Bias
	AFCS	Auto Focus Chip Select
	AFRP	Audio PLL Voltage Control
	AF-VN	Zoom Encoder V-Ref (–)
	AF-VP	Zoom Encoder VREF (+)
	AGC	Automatic Gain Control
	AGCCNT	Automatic Gain Control Control
	AGND	Analogue Ground/Audio Ground
	AGS	Anti Ground Shooting
	AH(P) / (R)	Audio Head (Play) / (Record)
	AHASW	Audio Head Amp Switch Pulse
	AHSW	Audio Head Switch Pulse
	AI, AO	Buffer Input, Output
	AIBCK	Bit Clock (to A/D Converter)
	AIDAT	Serial Data (to A/D Converter)
	AILRCK	L/R Clock (to A/D Converter)
	AIMCK	Master Clock (to A/D Converter)
	ALC CNT	Auto Level Control Control
	ALC MAIN	Auto Level Control Drive
	ALE	Address Latch Enable
	A-LOCK	Full Auto Switch
	A-MUT(H)	Audio Mute (H)
	ANLPTH	Analogue Loop Through High
	AORP	Audio Overlap Pulse
	APCNT	Aperture Control
	APS	Auto Power Save
	ART VH	Artifical Vertical Sync
	AT CNT	Automatic Tracking Gain Adjust
	ATF	Automatic Track Finding
	ATFCLK	41.85MHz Clock
	ATFG	Auto Track Gain
	ATL	Auto Lock Select
	ATN	Absolute Track Number
	ATR OFF(H)	Auto Tracking Off (H)
	ATV	Advanced TV
	AUDIO(N)	Audio (Normal)
	AUX	Auxiliary
	AVDD	Analogue VDD
	AVSS	Analogue Ground
	AWTB	Auto White Balance B-Y
	AWTR	Auto White Balance R-Y
B	BACK	Back-up
	BACK UP	Microcomputer Back-up
	BACK VDD	Back-up Power
	BATT	Battery
	BATT ALARM	Battery Alarm
	BATT REF	Reference Voltage for Battery
	BCB	B Carrier Balance
	BCBM(B-Y)	B-Y Carrier Balance
	BCBM(R-Y)	R-Y Carrier Balance
	BD0-7	REC/Play In/Out Buss
	BDCK	Standard Bus Data Clock (9MHz)
	BDEN	Standard Bus Data Enable
	BEND	Data Block End Request
	BF	Burst Flag Pulse
	BFA	Burst Flag Pulse for Encorder
	BFO/BFI	Burst Flug Input/Output
	BI, BO	Buffer Input, Output
	BL	Back Light
	BL ON	Back Light ON (L)
	BL4V	Back Light 4V
	BLC 0, 1	Back Light Y Control Out, In
	BLDI/O	Back Light Drive Input/Output
	BLK	Blanking Pulse
	BLKA	Blanking for Encorder
	BLKA	Blanking Pulse for Encorder
	BLKI/O	Blanking Pulse In/Out

	INITIAL/LOGO	ABBREVIATIONS
	BLKZ	Blanking Pulse for Zoom Encorder
	BM	Balance Modulator
	BQUIET	Bus Out Control Signal
	BUF IN/OUT	Buffer In/Out
	B-Y KB	B-Y Carrier Balance
	B-YO	B-Y Signal Out
C	C A In/Out	Pre-Aperture In/Out
	CAPSTP	Capstan Stop Flag
	C CNT	Colour Control
	C SYNC	Composite Sync Signal
	C/N	Carrier/Noise
	C0-7, C00-07	Chrominance Signal 0-7
	CAGAIN	Aperture Gain Control
	CAM	Camera
	CAM CLK	Camera Clock
	CAM RST	Camera Reset
	CAM SIOC	Camera Serial In/Out Contol
	CAM T	Camera Test
	CAM TL	Capstan Trque Limit
	CAP EC	Capstan Trque Control
	CAP P(H)	Capstan Power On (H)
	CAP R/F/S	Capstan Reverse (H)/Stop (M)/Forward (L)
	CAP SW	Capstan Power Control Switch
	CAPSTP H	Capstan Stop Flag (Stop High)
	CAPVM	Capstan Motor Current
	CAPVS	Capstan Motor Power Control Switch
	CAS	Compresion, Audio Process, Shuffling/Deshuffling
	CAS	Memory Address Strobe (Active Low)
	CASDOWN, DWN	Cassette Down (L)
	CB, CR	Chroma B, Chroma R
	CBLK	Composite Blanking Pulse
	CC	Channel Cording
	CCA	Curent Drive Control
	CCA	Current Control Amp
	CCD	Charge Coupled Devise
	CCW	Counterclockwise
	CD SP0-7	Digital Chroma
	CDS	Correlate Double Sampling Signal
	CDS1, 2	Sampling Pulse for CCD Output Signal
	CE	Chip Enable
	CE	Control Pulse Erase
	CEC	Capstan Error Code
	C-ERA(H)	Control Erase (H)
	CFEM	Chrominance Memory Signal
	CFM	Chrominance Field Memory
	CFM1-4	Chroma Field Memory Signal
	CG CLK	Character Generator Clock
	CG CLK DATA	Clock Generator Data
	CG DATA	Character Generator Data
	CGC	Chrominance Gain Control
	CGCS	Character Generator Chip Select
	CGO	Character Generator Serial Data
	CH	Charge

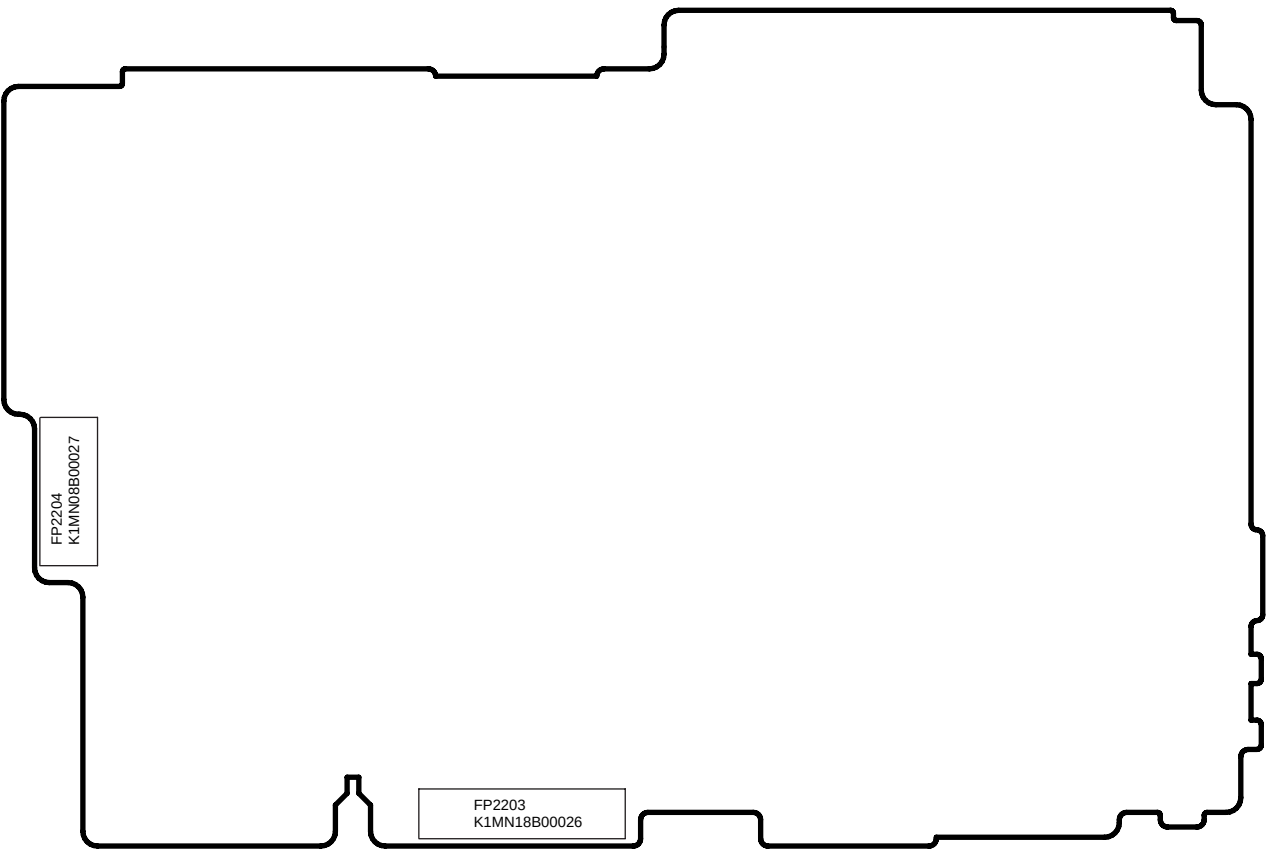
	INITIAL/LOGO	ABBREVIATIONS
	CH1	Channel 1 (Odd Field)
	CHR	Character
	CHR BACK	Character Back-up
	CHR MIX	Character Mix
	CI, CO	Buffer In/Out
	CI,CO	Buffer Input & Output
	CIF	Control Signal Forward Input
	CIF, CIR	Positive Control Pulse, Negative Control Pulse
	CIR	Control Signal Reverse Input
	CK	Clock
	CL/CLK	Clock
	CLASS	Classeffication Signal for Compress (DCT/VLC)
	CLASS 0.1	Class Control Signal Durring DCT/VLC
	CLK135	13.5MHz System Clock
	CLK18	18MHz System Clock
	CLK2	Clock 2 (824XFH: 12.875MHz)
	CLK246	24.576MHz Clock
	CLK27	27MHz System Clock
	CLK450	450KHz Clock
	CLKDCLK	Digital Clock
	CLK-PH	Clock Phase Control
	CLK-REF	Reference Clock
	CLP-RST-H	Clamp Reset High Signal
	CLX	TFT X-axis Transmission Clock
	CLX, CLX1-4	Shift Clock for X Direction (LCD Panel)
	CLY	Shift Clock for Y Direction (LCD Panel)
	CLY	TFT Y-axis Transmission Clock
	CLY FG	Cylinder FG Signal
	CMEMO0-3	Chroma Memory Output Signal 0-3
	CMIX	Character Mix
	CMO	Chrominance Memory Output
	COMPC	Position Detection Pulse
	COM RDY	Serial Enable Signal
	CMODE	Camera Mode
	CNCLK	Clock
	CNR	Chrominance Noise Reduction
	CNT, CONT	Control
	CO	Control Out
	CO0-7	Chrominance Output 0 to 7 (Digital)
	COM	Common
	COM RDY	Serial Transmission Enable
	COMB	Comb Filter
	COS EQ	Cosin Equalizer
	CP	Clamp Pulse
	CP ON(H)	Camera Power On(H)
	CP2, 20	Clamp Pulse
	CP2A, CP2O	Encoder Clamp Pulse
	CPN	Component Signal
	CPOB	Clamp Pulse for Optical Blanking
	CPS	Composite Signal
	CPV	Gate Scan Clock
	CR OUT	Pre Apature Out
	CR POW SW	Camera Remote Power On Switch
	CRA	Aperture Gain Control

	INITIAL/LOGO	ABBREVIATIONS
	CRA	Pre Apature Gain Control
	CRST	Camera Reset
	CS	Chip Select
	CS 0-7	Chrominance Signal Out 0-7
	CSEL	Clock Phase Select
	CSI 0-7	Chrominance Signal In 0-7
	CTSW	Crosstalk Switch
	CURR	Current
	CW	Clockwise
	CYL EC	Cylinder Motor Trque Control
	CYL PG	Cylinder Motor PG
	CYL VM	Cylinder Motor Current or Power
D	D CLK	Digital Clock
	D MODE	Digital Mode Switch Signal
	D01-03	Zoom 01-03
	DA UV SEL	D/A Convertor U/V Select
	DAC	Digital Analogue Converter
	DAG	Digital Analogue Ground
	DB0-7	Data 0-7
	DB0-7	Microprocessor Data
	DCC	DC Clamp Control
	DCCNT	DC Control
	DCI	Digital Channel Cording IC
	DCLR	Digital Clear
	DCP	Digital Clamp Pulse
	DCS-CLK, DA	CAS & DV I/F Serial Clock
	DC-STP1	DCS Serial Start
	DC-STP2	DCS Serial Stop
	DCT	Discrete Cosine Transform (Compression)
	DCX7	Serial Data
	DEDP 0-3	Playback Data
	DEDR 0-3	Rec Data
	DEMO	Demodulation
	DEMP	A/D Convertor Empahsis Control
	DEMP	De-Emphasis
	DFD 0-7	Encode Data In/Out Between Shaffling Memory
	DFD0-7	Encode Input/Output Signal for Shuffling Memory
	DIBDCK	Bit Clock
	DICLK	Digital Clock
	DIDAT	Serial Data
	DIDAT	Serial Data Durring Digital Audio In
	DIF	Digital Interface
	DILRCK	L/R Clock
	DILRCK	Serial Clock Durring Digital Audio In
	DIMCK	Master Clock
	DIMCK	Mater Clock Durring Digital Audio In
	DIO 1-8	Data In/Out
	DIOS	Data In/Out Select Control Signal
	DIOS	Select Signal for Digital In/Out
	DIS	Digital Image Stabilizer
	DIS R/B	Digital Image Stabilizer Read (H)/Busy (L)
	DIS R/B	DIS IC Rady/Busy
	DIS/KAND	Digital Image Stabilizer/Sensitivity
	DISCS	Dis Chip Select
	DISP	Display
	DL	Delay Line
	DOBCK	Audio A/D Convertor Bit Clock
	DOCTL	Data Output Control Signal
	DODAT	Serial Data (to D/A Converter)
	DOLRCK	Audio A/D Converter LR Clock
	DOLRCK	L/R Clock (to D/A Converter)
	DOMCK	Audio A/D Converter Master Clock
	DOMCK	Master Clock (to D/A Converter)
	DQ 1-16	Memory Data
	DRAM CAS	D-RAM Colum Address Strobe
	DRAM OE	D-RAM Out Enable
	DRAM RAS	D-RAM Read Address Strobe
	DREC	AV Delayed REC Start Pulse
	DRK	Dark (LPF Switch for Auto Focus)
	DS1, 2	Double Sampling Pulse
	DSF 0-7	Data In/Out for Shaffling Memory
	DSF 0-7	Input/Output Data to Shuffling Memory (18MHz)
	DSP	Digital Signal Processor
	DSP R/B	DSP IC Rady/Busy
	DSP-48K-H	DSP IC Clock Select
	DSTB	Data Stobe Signal
	DSV	Digital Sum Variation
	DV	Digital Video
	DVB	Digital Video Broadcast
	DVC	Digital Video Cassette
	DVDD	Digital VDD
	DVIO	Digital Video Input Output
	DVSS	Digital Ground
	DX	Shift Data for X Direction (for LCD)
	DY	Shift Data for Y Direction (for LCD)
	DY	TFT Y-axis Shift Data
	DZ	Digital Zoom
E	E Snap	Electric Snap Shot
	E ZM	Electric Zoom
	E2 CS or E2P CS	EEPROM Chip Select
	E2 R/B	EEPROM Rady/Busy
	E2P	EEPROM
	EARP	Earphone
	EC	Torque Control
	ECC	Error Correction Cording
	ECM	Electric Condencer Mic
	ECR	Reference Voltage for Capstan Torque
	EDA	Error Correction, DCI, ATF Servo
	EE CS	EEPROM Chip Select
	EE R/B	EEPROM Read (H)/Busy (L)
	EEPROM	Electric Erasable Programable Read Only Memory
	EIS	Electric Image Stabilizer (DIS)
	EMP	A/D Convertor Emphasis Control
	ENAB	Enable
	ENV	Enverope
	EOB	End of Block


C
B
A
1
2
3
4
TO
SUB CONNECTION
AUTO/MNL 1
MF/AF 2
D GND 3
D GND 4
SCAN4 5
REW 6
PLAY 7
FF 8
STOP 9
SCAN3 10
PAUSE 11
MENU 12
MF ENC2 13
MODE SW 14
MF ENC1 15
SE GND 16
SE GND 17
TO
FP301
PLAY
S6504
PAUSE
S6506
STOP
S6507
FF
S6508
REW
S6509
MENU
S6501
FOCUS
S6502
FULLAUTO/MANUAL
S6503
CAMERA ADJ/VOL/JOG
S6505
TO FRAME GND



(COMPONENT SIDE)



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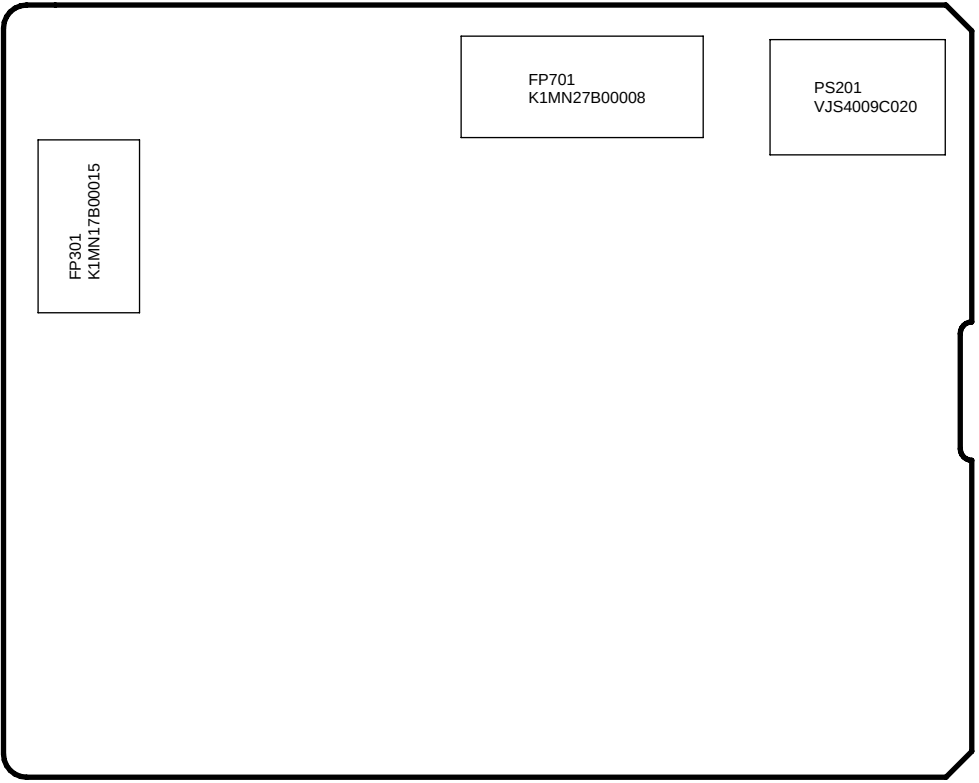
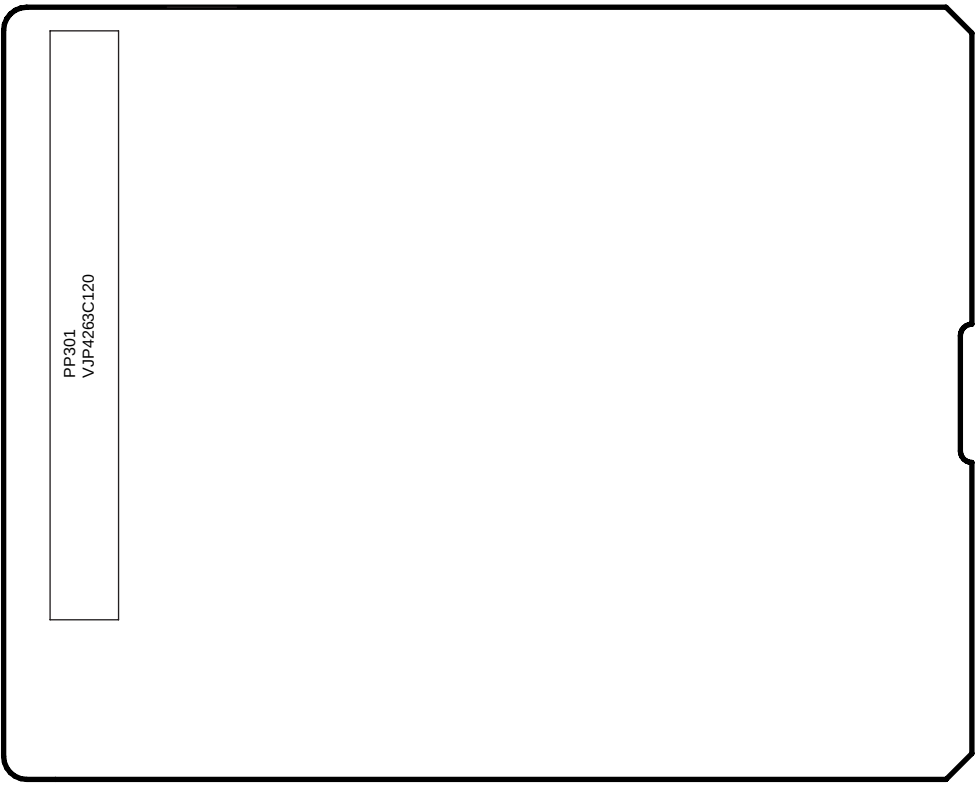
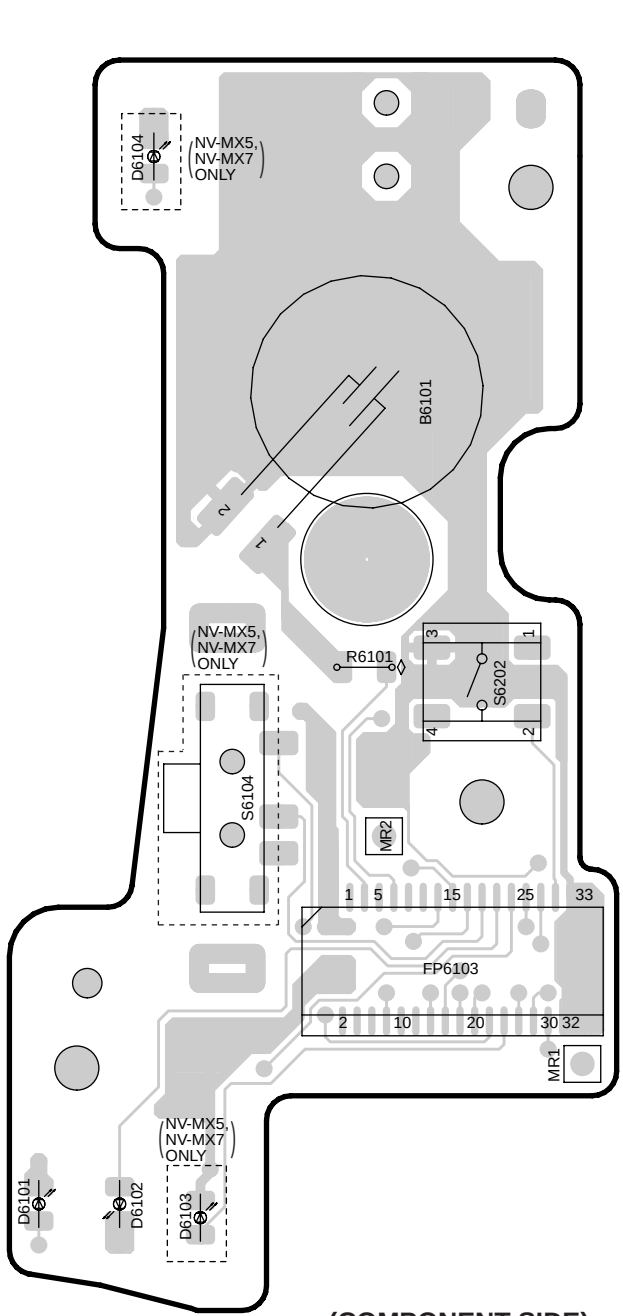


(COMPONENT SIDE)

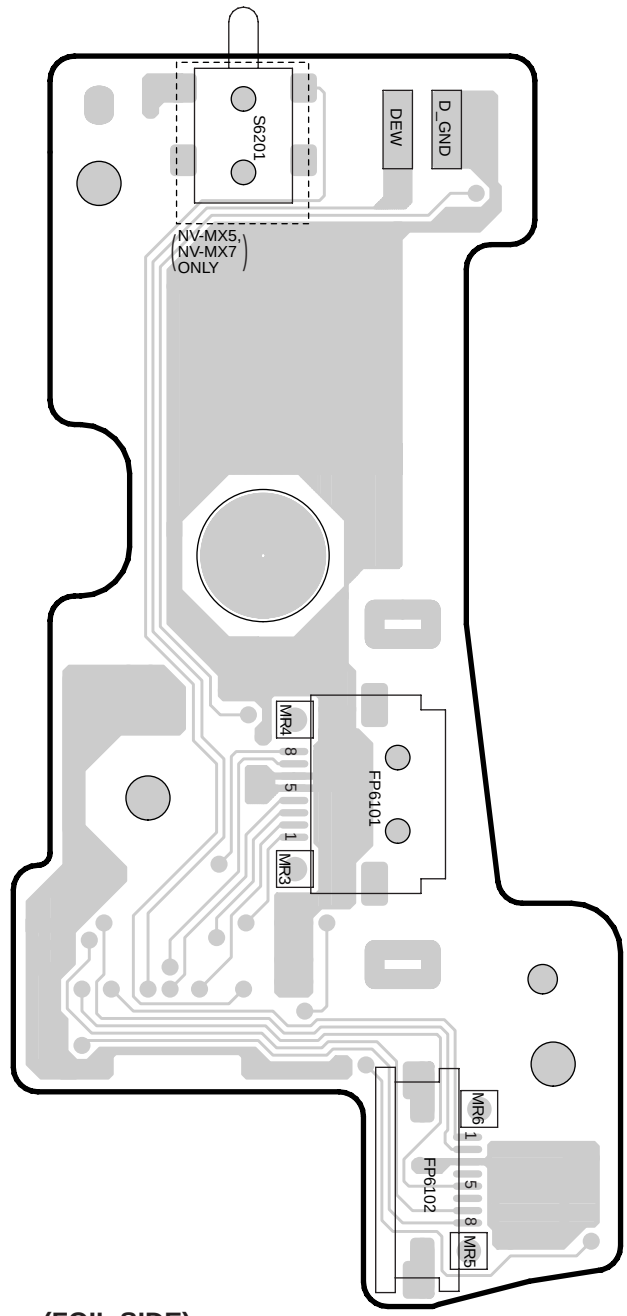


(FOIL SIDE)

GRIP C.B.A.
VEP06D86A : NV-MX5,NV-MX7
VEP06D86B : NV-MX1,NV-MX3



(COMPONENT SIDE)



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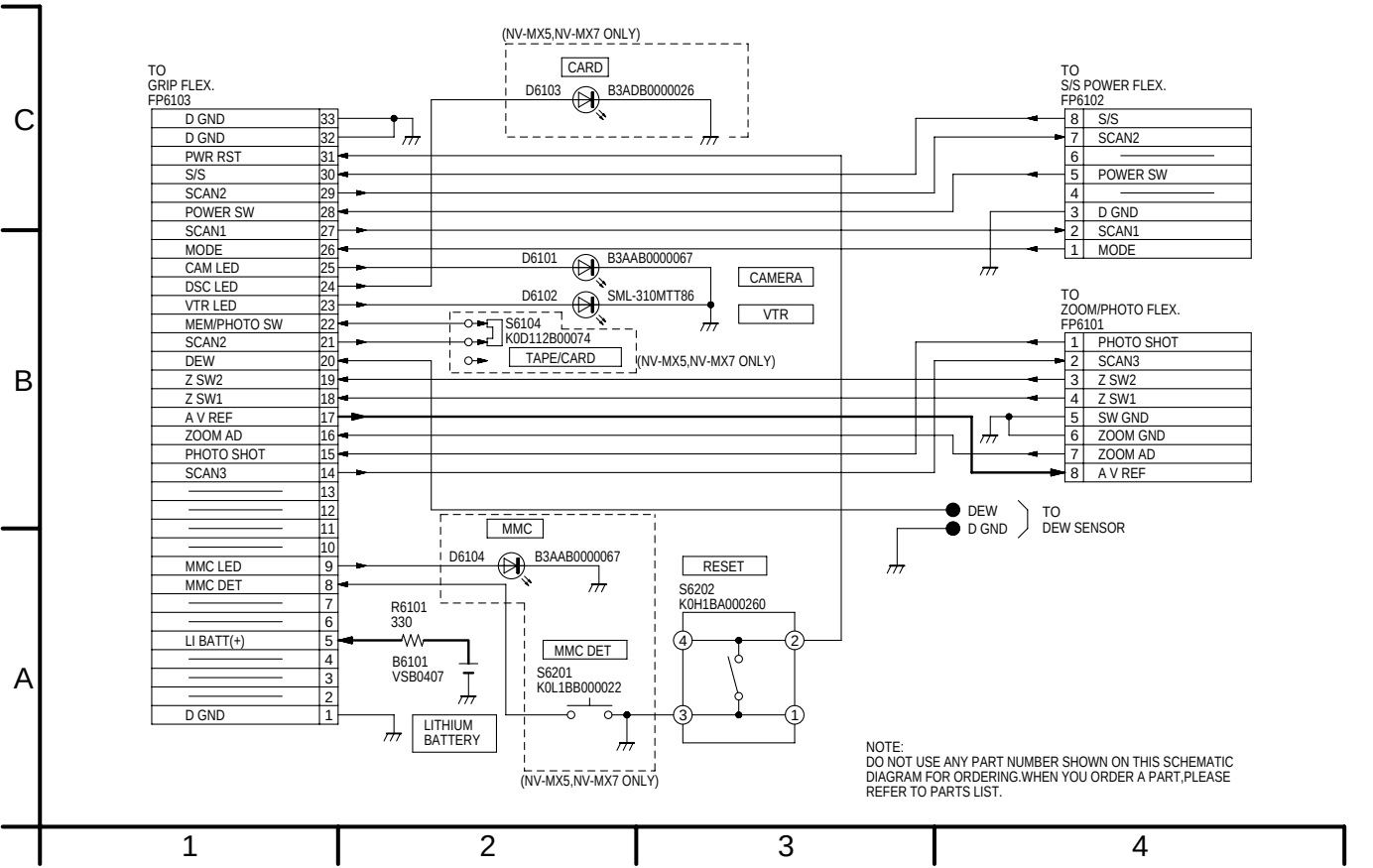
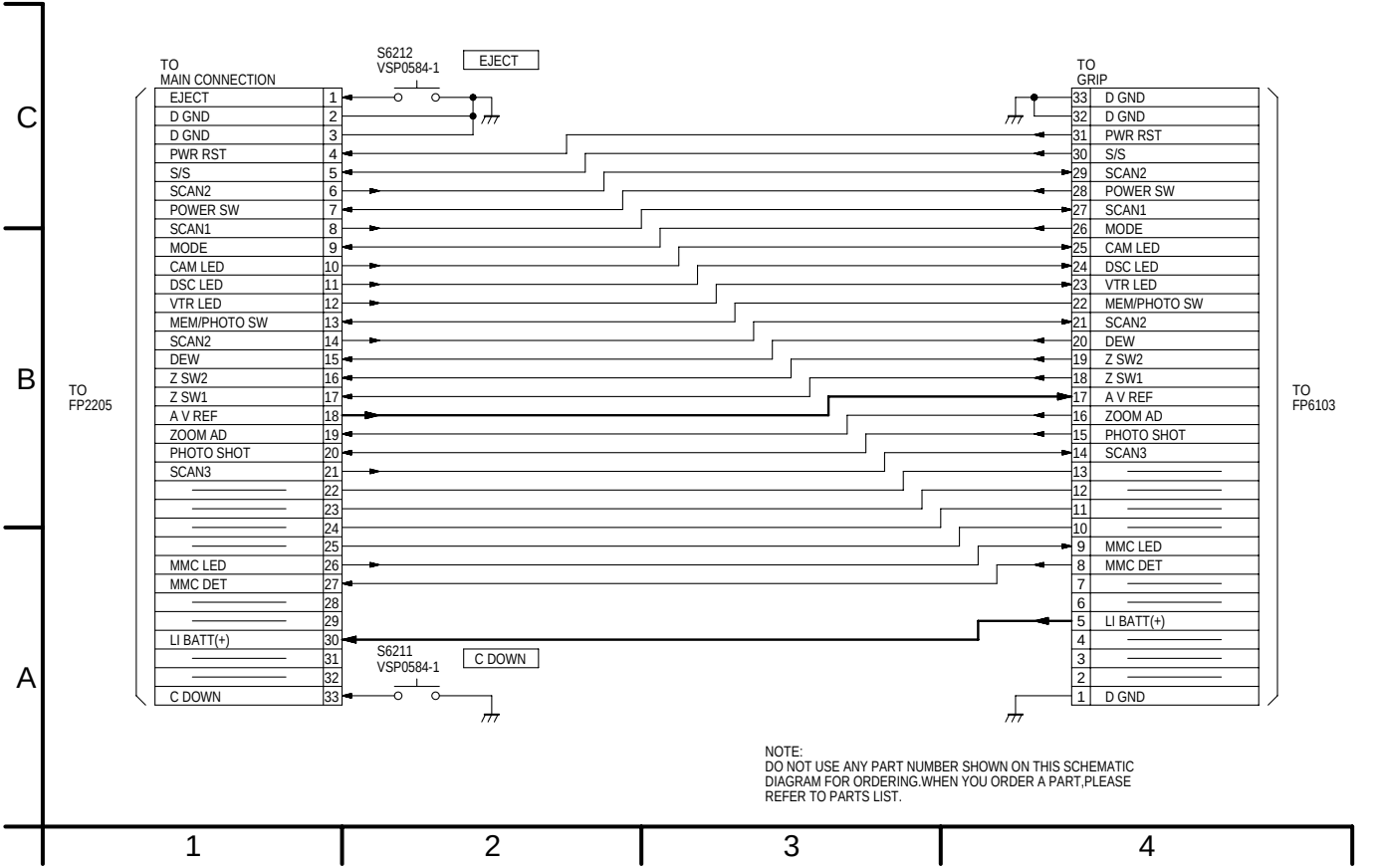
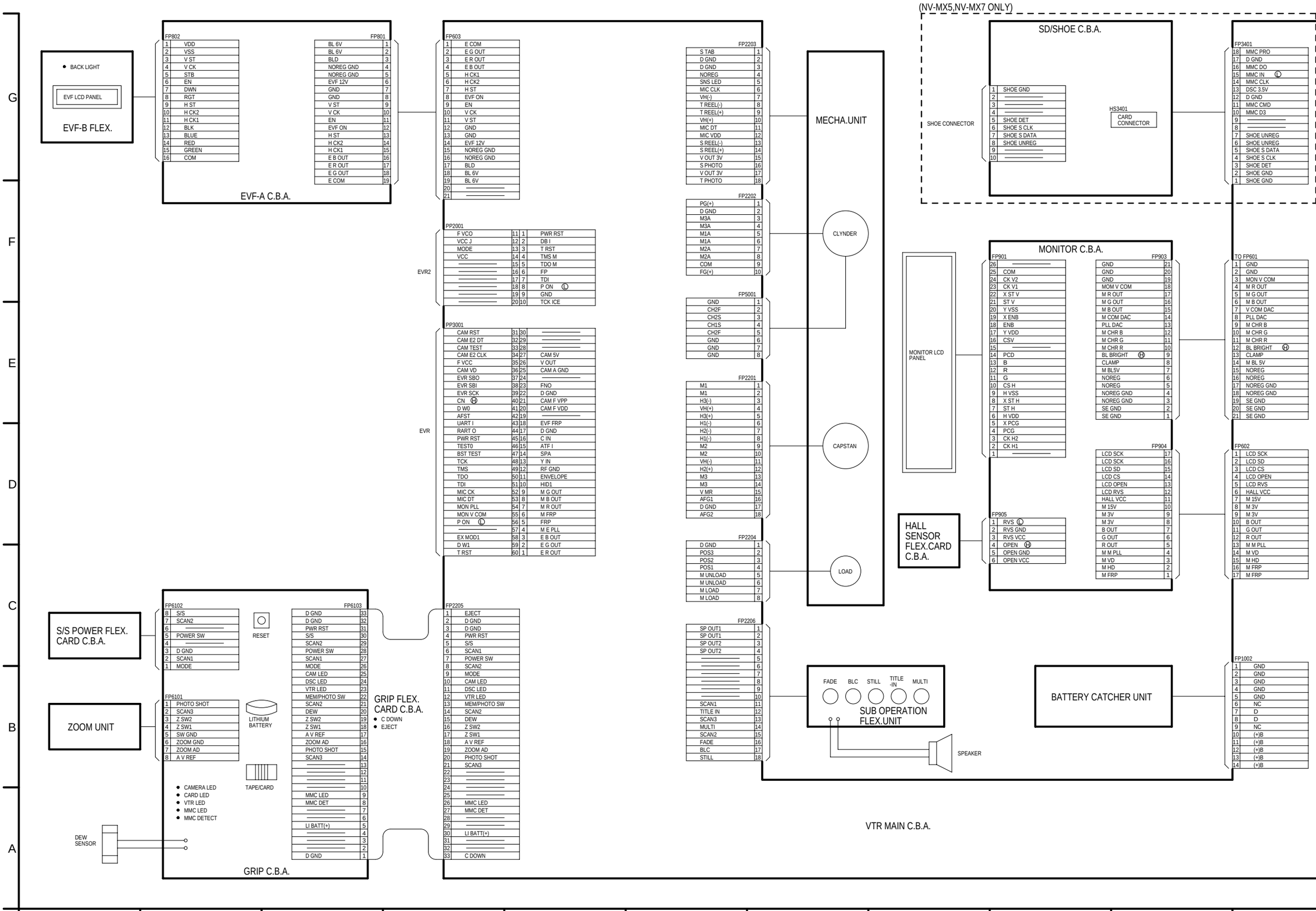
E D C B A

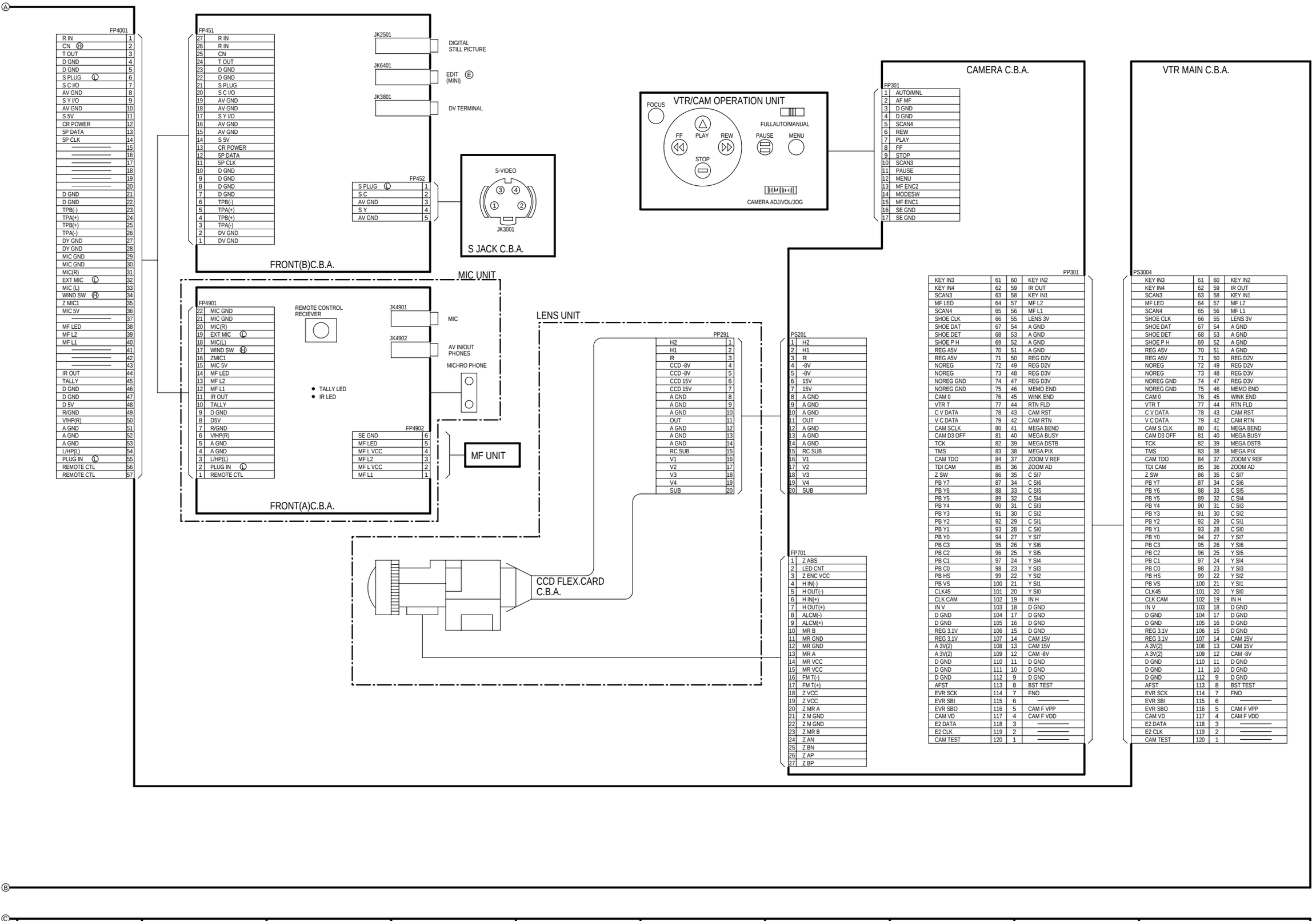
1 2 3 4


C
B
A
1
2
3
4
TO
GRIP FLEX.
FP6103
D GND 33
D GND 32
PWR RST 31
S/S 30
SCAN2 29
POWER SW 28
SCAN1 27
MODE 26
CAM LED 25
DSC LED 24
VTR LED 23
MEM/PHOTO SW 22
SCAN2 21
DEW 20
Z SW2 19
Z SW1 18
A V REF 17
ZOOM AD 16
PHOTO SHOT 15
SCAN3 14
13
12
11
10
MMC LED 9
MMC DET 8
7
6
LI BATT(+) 5
4
3
2
D GND 1
(NV-MX5,NV-MX7 ONLY)
CARD
D6103
B3ADB0000026
D6101
B3AAB0000067
CAMERA
D6102
SML-310MTT86
VTR
S6104
K0D112B00074
TAPE/CARD
(NV-MX5,NV-MX7 ONLY)
MMC
D6104
B3AAB0000067
R6101
330
B6101
VSB0407
MMC DET
S6201
K0L1BB000022
LITHIUM
BATTERY
(NV-MX5,NV-MX7 ONLY)
RESET
S6202
K0H1BA000260
4
2
3
1
TO
S/S POWER FLEX.
FP6102
8 S/S
7 SCAN2
6
5 POWER SW
4
3 D GND
2 SCAN1
1 MODE
TO
ZOOM/PHOTO FLEX.
FP6101
1 PHOTO SHOT
2 SCAN3
3 Z SW2
4 Z SW1
5 SW GND
6 ZOOM GND
7 ZOOM AD
8 A V REF
DEW
D GND
TO
DEW SENSOR
NOTE:
DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC
DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE
REFER TO PARTS LIST.



NOTE:
DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.


(NV-MX5,NV-MX7 ONLY)
BACK LIGHT
EVF LCD PANEL
EVF-B FLEX.
FP802
VDD
VSS
V ST
V CK
STB
EN
DWN
RGT
H ST
H CK2
H CK1
BLK
BLUE
RED
GREEN
COM
FP801
BL 6V
BL 6V
BLD
NOREG GND
NOREG GND
EVF 12V
GND
GND
V ST
V CK
EN
EVF ON
H ST
H CK2
H CK1
E B OUT
E R OUT
E G OUT
E COM
EVF-A C.B.A.
FP603
E COM
E G OUT
E R OUT
E B OUT
H CK1
H CK2
H ST
EVF ON
EN
V CK
V ST
GND
EVF 12V
NOREG GND
NOREG GND
BLD
BL 6V
BL 6V
FP2203
S TAB
D GND
D GND
NOREG
SNS LED
MIC CLK
VH(-)
T REEL(-)
T REEL(+)
VH(+)
MIC DT
MIC VDD
S REEL(-)
S REEL(+)
V OUT 3V
S PHOTO
V OUT 3V
T PHOTO
MECHA.UNIT
FP2202
PG(+)
D GND
M3A
M3A
M1A
M1A
M2A
M2A
COM
FG(+)
CLYNDER
FP5001
GND
CH2F
CH2S
CH1S
CH2F
GND
GND
FP2201
M1
M1
H3(-)
VH(+)
H3(+)
H1(-)
H2(-)
H1(-)
M2
M2
VH(-)
H2(+)
M3
M3
V MR
AFG1
D GND
AFG2
CAPSTAN
FP2204
D GND
POS3
POS2
POS1
M UNLOAD
M UNLOAD
M LOAD
M LOAD
LOAD
FP2206
SP OUT1
SP OUT1
SP OUT2
SP OUT2
SCAN1
TITLE IN
SCAN3
SCAN2
FADE
BLC
STILL
SD/SHOE C.B.A.
SHOE CONNECTOR
SHOE GND
SHOE DET
SHOE S CLK
SHOE S DATA
SHOE UNREG
HS3401
CARD CONNECTOR
FP3401
MMC PRO
D GND
MMC DO
MMC IN
MMC CLK
DSC 3.5V
D GND
MMC CMD
MMC D3
SHOE UNREG
SHOE UNREG
SHOE S DATA
SHOE S CLK
SHOE DET
SHOE GND
SHOE GND
MONITOR C.B.A.
MONITOR LCD PANEL
FP901
FP903
FP904
FP905
RVS
RVS GND
RVS VCC
OPEN
OPEN GND
OPEN VCC
HALL SENSOR FLEX.CARD C.B.A.
TO FP601
FP602
FP1002
SUB OPERATION FLEX.UNIT
FADE
BLC
STILL
TITLE -IN
MULTI
SPEAKER
BATTERY CATCHER UNIT
VTR MAIN C.B.A.
PP2001
F VCO
VCC J
MODE
VCC
PWR RST
DB I
T RST
TMS M
TDO M
FP
TDI
P ON
GND
TCK ICE
EVR2
PP3001
CAM RST
CAM E2 DT
CAM TEST
CAM E2 CLK
F VCC
CAM VD
EVR SBO
EVR SBI
EVR SCK
CN
D W0
AFST
UART I
RART O
PWR RST
TEST0
BST TEST
TCK
TMS
TDO
TDI
MIC CK
MIC DT
MON PLL
MON V COM
P ON
EX MOD1
D W1
T RST
CAM 5V
V OUT
CAM A GND
FNO
D GND
CAM F VPP
CAM F VDD
EVF FRP
D GND
C IN
ATF I
SPA
Y IN
RF GND
ENVELOPE
HID1
M G OUT
M B OUT
M R OUT
M FRP
FRP
M E PLL
E B OUT
E G OUT
E R OUT
EVR
S/S POWER FLEX. CARD C.B.A.
S/S
SCAN2
POWER SW
D GND
SCAN1
MODE
RESET
ZOOM UNIT
PHOTO SHOT
SCAN3
Z SW2
Z SW1
SW GND
ZOOM GND
ZOOM AD
A V REF
LITHIUM BATTERY
TAPE/CARD
CAMERA LED
CARD LED
VTR LED
MMC LED
MMC DETECT
DEW SENSOR
FP6102
FP6101
FP6103
GRIP C.B.A.
GRIP FLEX. CARD C.B.A.
C DOWN
EJECT
D GND
PWR RST
S/S
SCAN2
POWER SW
SCAN1
MODE
CAM LED
DSC LED
VTR LED
MEM/PHOTO SW
SCAN2
DEW
Z SW2
Z SW1
A V REF
ZOOM AD
PHOTO SHOT
SCAN3
MMC LED
MMC DET
LI BATT(+)
D GND
FP2205
EJECT
D GND
D GND
PWR RST
S/S
SCAN1
POWER SW
SCAN2
MODE
CAM LED
DSC LED
VTR LED
MEM/PHOTO SW
SCAN2
DEW
Z SW2
Z SW1
A V REF
ZOOM AD
PHOTO SHOT
SCAN3
MMC LED
MMC DET
LI BATT(+)
C DOWN
A
B
C
D
E
F
G
1
2
3
4
5
6
7
8
9
10
11


FP4001
R IN 1
CN H 2
T OUT 3
D GND 4
D GND 5
S PLUG L 6
S C I/O 7
AV GND 8
S Y I/O 9
AV GND 10
S 5V 11
CR POWER 12
5P DATA 13
5P CLK 14
15
16
17
18
19
20
D GND 21
D GND 22
TPB(-) 23
TPA(+) 24
TPB(+) 25
TPA(-) 26
DY GND 27
DY GND 28
MIC GND 29
MIC GND 30
MIC(R) 31
EXT MIC L 32
MIC (L) 33
WIND SW H 34
Z MIC1 35
MIC 5V 36
37
MF LED 38
MF L2 39
MF L1 40
41
42
43
IR OUT 44
TALLY 45
D GND 46
D GND 47
D 5V 48
R/GND 49
V/HP(R) 50
A GND 51
A GND 52
A GND 53
L/HP(L) 54
PLUG IN L 55
REMOTE CTL 56
REMOTE CTL 57
FP451
27 R IN
26 R IN
25 CN
24 T OUT
23 D GND
22 D GND
21 S PLUG
20 S C I/O
19 AV GND
18 AV GND
17 S Y I/O
16 AV GND
15 AV GND
14 S 5V
13 CR POWER
12 5P DATA
11 5P CLK
10 D GND
9 D GND
8 D GND
7 D GND
6 TPB(-)
5 TPA(+)
4 TPB(+)
3 TPA(-)
2 DV GND
1 DV GND
FRONT(B)C.B.A.
JK2501
DIGITAL STILL PICTURE
JK6401
EDIT (MINI) E
JK3801
DV TERMINAL
FP452
S PLUG L 1
S C 2
AV GND 3
S Y 4
AV GND 5
S-VIDEO
JK3001
S JACK C.B.A.
MIC UNIT
FP4901
22 MIC GND
21 MIC GND
20 MIC(R)
19 EXT MIC L
18 MIC(L)
17 WIND SW H
16 ZMIC1
15 MIC 5V
14 MF LED
13 MF L2
12 MF L1
11 IR OUT
10 TALLY
9 D GND
8 D5V
7 R/GND
6 V/HP(R)
5 A GND
4 A GND
3 L/HP(L)
2 PLUG IN L
1 REMOTE CTL
FRONT(A)C.B.A.
REMOTE CONTROL RECIEVER
TALLY LED
IR LED
JK4901
MIC
JK4902
AV IN/OUT PHONES
MICHRO PHONE
FP4902
SE GND 6
MF LED 5
MF L VCC 4
MF L2 3
MF L VCC 2
MF L1 1
MF UNIT
LENS UNIT
CCD FLEX.CARD C.B.A.
PP291
H2 1
H1 2
R 3
CCD -8V 4
CCD -8V 5
CCD 15V 6
CCD 15V 7
A GND 8
A GND 9
A GND 10
OUT 11
A GND 12
A GND 13
A GND 14
RC SUB 15
V1 16
V2 17
V3 18
V4 19
SUB 20
PS201
1 H2
2 H1
3 R
4 -8V
5 -8V
6 15V
7 15V
8 A GND
9 A GND
10 A GND
11 OUT
12 A GND
13 A GND
14 A GND
15 RC SUB
16 V1
17 V2
18 V3
19 V4
20 SUB
FP701
1 Z ABS
2 LED CNT
3 Z ENC VCC
4 H IN(-)
5 H OUT(-)
6 H IN(+)
7 H OUT(+)
8 ALCM(-)
9 ALCM(+)
10 MR B
11 MR GND
12 MR GND
13 MR A
14 MR VCC
15 MR VCC
16 FM T(-)
17 FM T(+)
18 Z VCC
19 Z VCC
20 Z MR A
21 Z M GND
22 Z M GND
23 Z MR B
24 Z AN
25 Z BN
26 Z AP
27 Z BP
VTR/CAM OPERATION UNIT
FOCUS
FF
PLAY
REW
STOP
FULLAUTO/MANUAL
PAUSE
MENU
CAMERA ADJ/VOL/JOG
CAMERA C.B.A.
FP301
1 AUTO/MNL
2 AF MF
3 D GND
4 D GND
5 SCAN4
6 REW
7 PLAY
8 FF
9 STOP
10 SCAN3
11 PAUSE
12 MENU
13 MF ENC2
14 MODESW
15 MF ENC1
16 SE GND
17 SE GND
PP301
KEY IN3 61 60 KEY IN2
KEY IN4 62 59 IR OUT
SCAN3 63 58 KEY IN1
MF LED 64 57 MF L2
SCAN4 65 56 MF L1
SHOE CLK 66 55 LENS 3V
SHOE DAT 67 54 A GND
SHOE DET 68 53 A GND
SHOE P H 69 52 A GND
REG A5V 70 51 A GND
REG A5V 71 50 REG D2V
NOREG 72 49 REG D2V
NOREG 73 48 REG D3V
NOREG GND 74 47 REG D3V
NOREG GND 75 46 MEMO END
CAM 0 76 45 WINK END
VTR T 77 44 RTN FLD
C V DATA 78 43 CAM RST
V C DATA 79 42 CAM RTN
CAM SCLK 80 41 MEGA BEND
CAM D3 OFF 81 40 MEGA BUSY
TCK 82 39 MEGA DSTB
TMS 83 38 MEGA PIX
CAM TDO 84 37 ZOOM V REF
TDI CAM 85 36 ZOOM AD
Z SW 86 35 C SI7
PB Y7 87 34 C SI6
PB Y6 88 33 C SI5
PB Y5 89 32 C SI4
PB Y4 90 31 C SI3
PB Y3 91 30 C SI2
PB Y2 92 29 C SI1
PB Y1 93 28 C SI0
PB Y0 94 27 Y SI7
PB C3 95 26 Y SI6
PB C2 96 25 Y SI5
PB C1 97 24 Y SI4
PB C0 98 23 Y SI3
PB HS 99 22 Y SI2
PB VS 100 21 Y SI1
CLK45 101 20 Y SI0
CLK CAM 102 19 IN H
IN V 103 18 D GND
D GND 104 17 D GND
D GND 105 16 D GND
REG 3.1V 106 15 D GND
REG 3.1V 107 14 CAM 15V
A 3V(2) 108 13 CAM 15V
A 3V(2) 109 12 CAM -8V
D GND 110 11 D GND
D GND 111 10 D GND
D GND 112 9 D GND
AFST 113 8 BST TEST
EVR SCK 114 7 FNO
EVR SBI 115 6 ———
EVR SBO 116 5 CAM F VPP
CAM VD 117 4 CAM F VDD
E2 DATA 118 3 ———
E2 CLK 119 2 ———
CAM TEST 120 1 ———
VTR MAIN C.B.A.
PS3004
KEY IN3 61 60 KEY IN2
KEY IN4 62 59 IR OUT
SCAN3 63 58 KEY IN1
MF LED 64 57 MF L2
SCAN4 65 56 MF L1
SHOE CLK 66 55 LENS 3V
SHOE DAT 67 54 A GND
SHOE DET 68 53 A GND
SHOE P H 69 52 A GND
REG A5V 70 51 A GND
REG A5V 71 50 REG D2V
NOREG 72 49 REG D2V
NOREG 73 48 REG D3V
NOREG GND 74 47 REG D3V
NOREG GND 75 46 MEMO END
CAM 0 76 45 WINK END
VTR T 77 44 RTN FLD
C V DATA 78 43 CAM RST
V C DATA 79 42 CAM RTN
CAM S CLK 80 41 MEGA BEND
CAM D3 OFF 81 40 MEGA BUSY
TCK 82 39 MEGA DSTB
TMS 83 38 MEGA PIX
CAM TDO 84 37 ZOOM V REF
TDI CAM 85 36 ZOOM AD
Z SW 86 35 C SI7
PB Y7 87 34 C SI6
PB Y6 88 33 C SI5
PB Y5 89 32 C SI4
PB Y4 90 31 C SI3
PB Y3 91 30 C SI2
PB Y2 92 29 C SI1
PB Y1 93 28 C SI0
PB Y0 94 27 Y SI7
PB C3 95 26 Y SI6
PB C2 96 25 Y SI5
PB C1 97 24 Y SI4
PB C0 98 23 Y SI3
PB HS 99 22 Y SI2
PB VS 100 21 Y SI1
CLK45 101 20 Y SI0
CLK CAM 102 19 IN H
IN V 103 18 D GND
D GND 104 17 D GND
D GND 105 16 D GND
REG 3.1V 106 15 D GND
REG 3.1V 107 14 CAM 15V
A 3V(2) 108 13 CAM 15V
A 3V(2) 109 12 CAM -8V
D GND 110 11 D GND
D GND 11 10 D GND
D GND 112 9 D GND
AFST 113 8 BST TEST
EVR SCK 114 7 FNO
EVR SBI 115 6 ———
EVR SBO 116 5 CAM F VPP
CAM VD 117 4 CAM F VDD
E2 DATA 118 3 ———
E2 CLK 119 2 ———
CAM TEST 120 1 ———
A
B
C
12
13
14
15
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17
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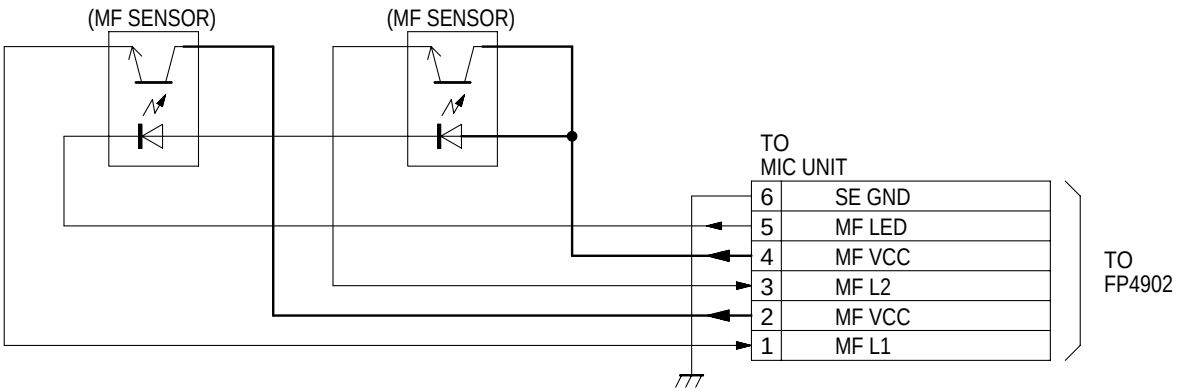
20
21



NOTE:
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B

A

1 2 3

MIC UNIT : VEK9211

Mic Unit

Integrated Circuit	
IC4801	B-1
IC4802	D-8

Transistor	
Q491	C-6
Q492	B-7
Q4805	D-2
Q4810	A-9
Q4811	C-8
Q4901	B-3
Q4902	B-3
Q4903	A-7
Q4904	B-7
Q4905	D-2
Q4906	B-6
Q4907	C-2

Transistor & Resistor	
QR4903	C-8
QR4904	C-8

Connector	
FP4901	D-3
FP4902	D-2

Test Point	
CL4802	B-2
CL4803	B-2
CL4804	C-3
CL4805	E-3
CL4807	D-3
CL4808	C-3
CL4901	C-7
CL6801	C-4

Jack	
JK4901	C-4
JK4902	D-4

IR Reseiver	
IR6401	C-9

Diode	
D491	C-7
D6801	C-8
D6802	C-7

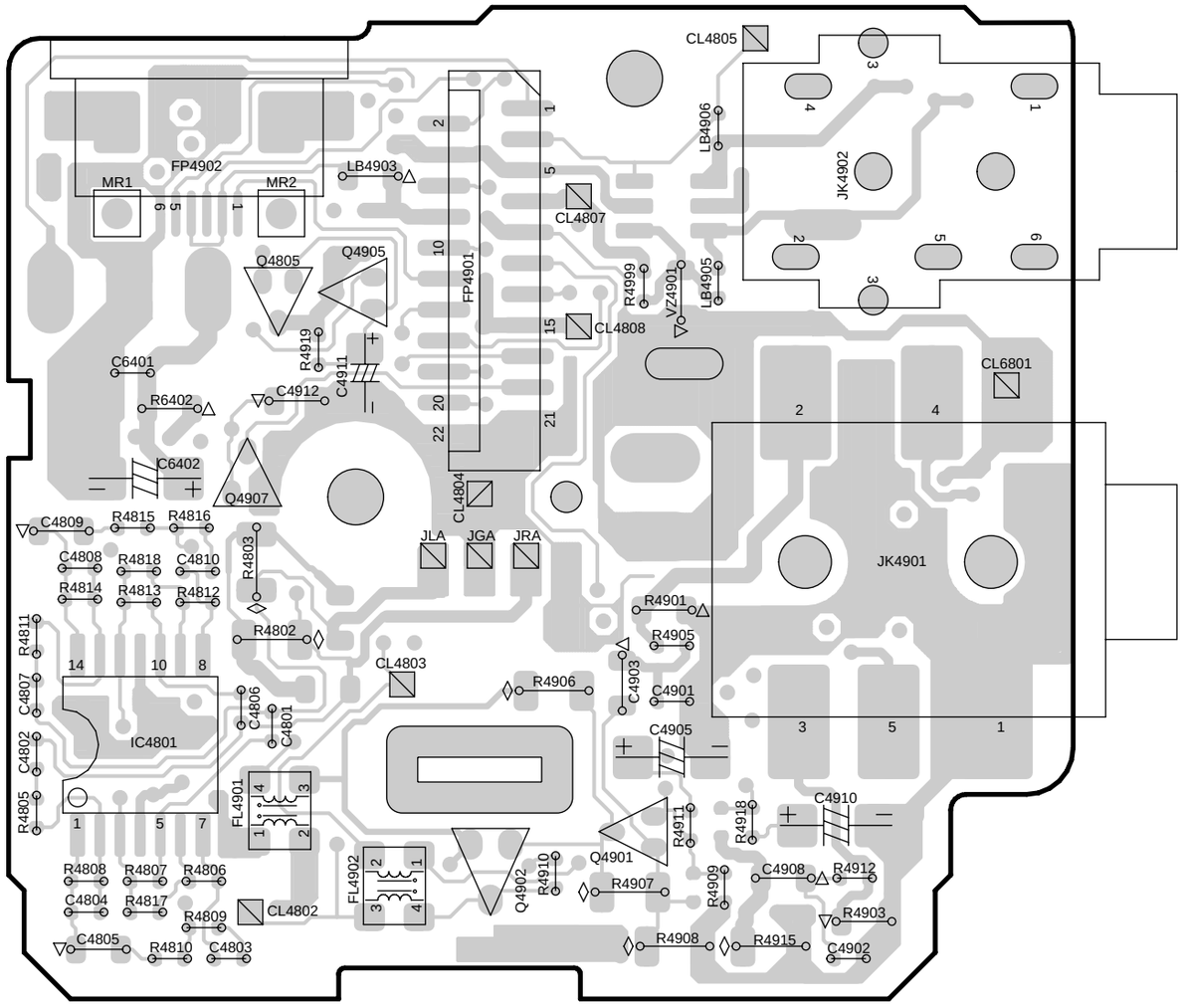
Filter	
FL4901	B-2
FL4902	B-2

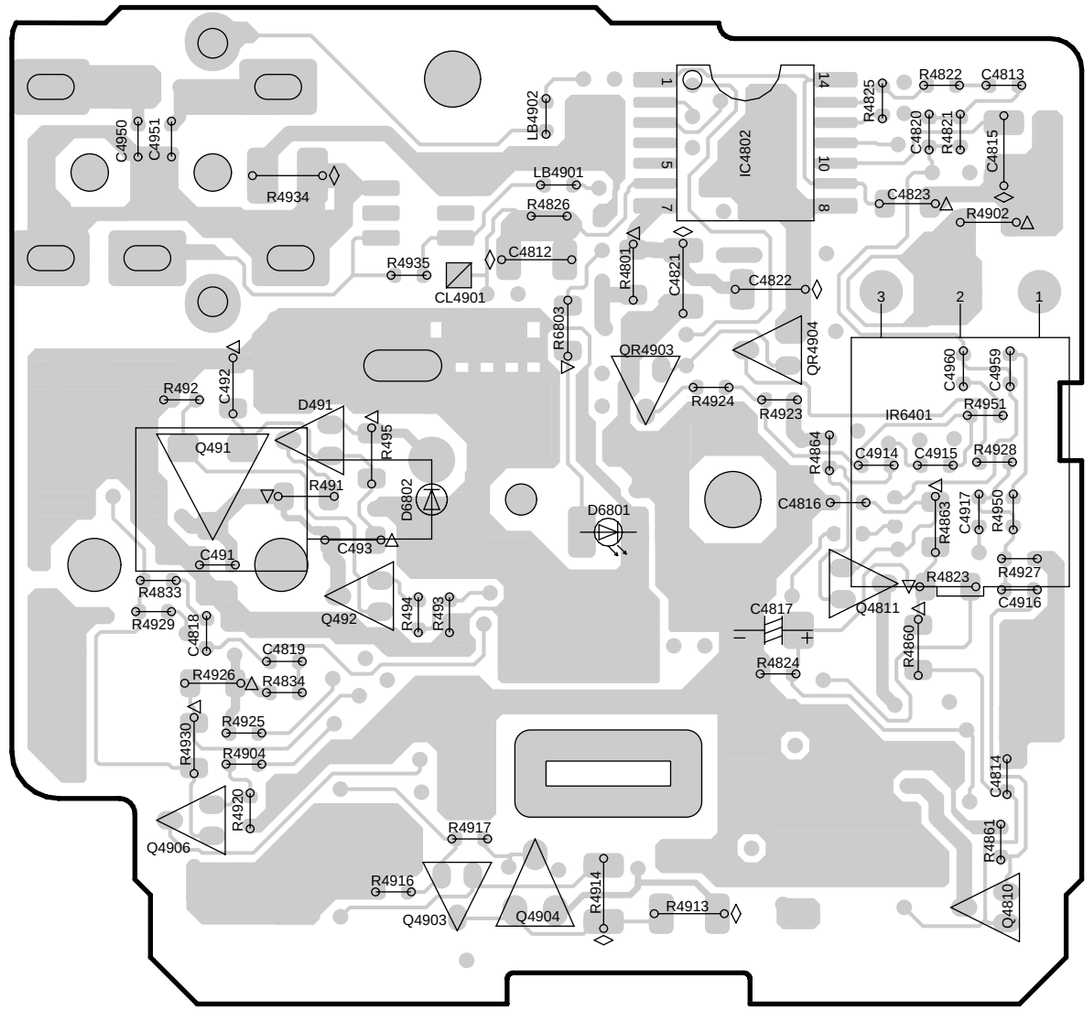
Coil	
LB4901	D-7
LB4902	D-7
LB4903	D-2
LB4905	D-3
LB4906	D-3

Capasitor	
C491	C-6
C492	C-6
C493	C-7
C4801	B-2
C4802	B-1
C4803	A-2
C4804	B-1
C4805	A-1
C4806	B-2
C4807	B-1
C4808	C-1
C4809	C-1
C4810	C-2
C4812	D-7
C4813	D-9
C4814	B-9
C4815	D-9
C4816	C-8
C4817	B-8
C4818	B-6
C4819	B-6
C4820	D-8
C4821	C-8
C4822	C-8
C4823	D-8
C4901	B-3
C4902	A-4
C4903	B-3
C4905	B-3
C4908	B-3
C4910	B-4
C4911	C-2
C4912	C-2
C4914	C-8
C4915	C-9
C4916	B-9
C4917	B-9
C4919	B-9
C4950	D-6
C4951	D-6
C4959	C-9
C4960	C-9
C6401	C-1
C6402	C-1

Resistor	
R491	C-7
R492	C-6
R493	B-7
R494	B-7
R495	C-7
R4801	D-8
R4802	B-2
R4803	C-2
R4805	B-1
R4806	B-2
R4807	B-1
R4808	B-1
R4809	B-3
R4810	A-2
R4811	B-1
R4812	C-2
R4813	C-1
R4814	C-1
R4815	C-1
R4816	C-2
R4817	B-1
R4818	C-2
R4821	D-7
R4822	D-9
R4823	B-9
R4824	B-8
R4825	D-8
R4826	D-7
R4833	C-6
R4834	B-6
R4860	B-8
R4861	B-9
R4863	C-9
R4864	C-8
R4901	C-3
R4902	D-9
R4903	B-3
R4904	B-3
R4905	B-3
R4906	A-2
R4907	A-3
R4908	B-4
R4909	C-2
R4910	C-2
R4911	C-1
R4912	B-3
R4913	B-3
R4914	B-4
R4915	C-1
R4916	C-1
R4917	B-4
R4918	B-6
R4920	B-3
R4923	B-3
R4924	B-6
R4925	B-6
R4926	B-6
R4927	C-9
R4928	C-9
R4929	B-6
R4930	B-6
R4934	D-6
R4935	D-6
R4951	C-9
R4999	D-3
R6402	C-2
R6803	C-7

Absorber	
VZ4901	D-3





(COMPONENT SIDE) **(FOIL SIDE)**

NOTE:MULTILAYER C.B.A.
THIS C.B.A. IS Multi-Layer C.B.A. THIS CIRCUIT BOARD SHOWS COMPONENT LAYOUT-PATTERN FOR COMPONENT SIDE AND FOIL SIDE. LAYOUT-PATTERNS ARE SINGLE PATTERN FOR EACH SIDE THAT MAKE EASY TO SIGHT THE COMPONENT LAYOUT.

E D C B A

1 2 3 4 5 6 7 8 9

:VIDEO MAIN SIGNAL PATH
:AUDIO MAIN SIGNAL PATH

MICRO PHONE
JRA
JLA
JGA
R4802 3900
R4803 3900
R4823 22K
C4803 0.033
R4809 10K
C4802 0.047
R4805 33K
C4804 470P
C4805 0.15
R4810 10K
C4801 0.015
R4807 22K
C4814 8200P
R4806 68K
R4817 56K
R4808 68K
R4860 100K
IC4801
C0ABBB000081
(MIC AMP)
R4812 68K
R4813 22K
R4814 68K
C4806 0.015
C4807 0.047
R4811 33K
C4808 470P
C4809 0.15
R4815 10K
R4818 56K
C4817 6V10
R4824 33K
R4863 100K
C4810 0.033
R4816 10K
C4816 8200P
C4914 0.1
R4864 4700
Q4811
2SD2216J0L
(AMP)
CL4808
Q4810
2SD2216J0L
(AMP)
R4861 4700
C4916 0.1
R4801 0
Q4805
2SD2216J0L
(SWITCHING 5V)
C4821 0.1
C4822 F1J0J475A006
C4813 0.047
R4822 10K
R4821 68K
C4820 470P
IC4802
C0ZBZ0000269
(EVR)
C4815 F1J0J475A006
R4825 33K
C4823 1
R4950 33K
C4959 0.01
R4951 33K
C4960 0.01
R4927 100K
R4928 2200
QR4904
UNR9212J0L
(INV.)
C493 0.22
C492 0.22
Q491
B1ABCF000075
(AMP)
Q492
2SD2216J0L
(AMP)
R492 330K
R494 1800
R493 8200
C6401 0.1
C6402 6V22
IR6401
PNA4611M05VT
(REMOTE CONTROL RECIEVER)
VCC
GND
OUT
D491
MA3S132D0L
R495 10M
R491 2.2M
C491 0.1
R6402 47
D6802
B3GA00000022
IR LED
LB4903
J0JAD0000002
TO
MF SENSOR
FP4902

6	SE GND	
5	MF LED	
4	MF L VCC	
3	MF L2	
2	MF L VCC	
1	MF L1	

TO
MAIN CONNECTION
FP4901

1	REMOTE CTL	FP4001-56,57
2	PLUG IN Ⓛ	FP4001-55
3	L/HP(L)	FP4001-54
4	A GND	FP4001-51,52,53
5	A GND	FP4001-51,52,53
6	V/HP(R)	FP4001-50
7	R/GND	FP4001-49
8	D 5V	FP4001-48
9	D GND	FP4001-46,47
10	TALLY	FP4001-45
11	IR OUT	FP4001-44
12	MF L1	FP4001-40
13	MF L2	FP4001-39
14	MF LED	FP4001-38
15	MIC 5V	FP4001-36
16	ZMIC1	FP4001-35
17	WIND SW Ⓗ	FP4001-34
18	MIC(L)	FP4001-33
19	EXT MIC Ⓛ	FP4001-32
20	MIC(R)	FP4001-31
21	MIC GND	FP4001-29,30
22	MIC GND	FP4001-29,30

R4826 10K
C4812 F1J0J475A006
CL4901
R6803 330
D6801
B3AAB0000052
TALLY LED
LB4902 J0JAC0000811
LB4901 J0JBC0000042
AV IN/OUT
PHONES
JK4902
K2HC106B0005
LB4905 J0JBC0000024
LB4906 J0JBC0000024
CL4805
C4951 4700P
C4950 4700P
R4934 0
R4935 0
CL4807
R4999 100
VZ4901
D4ED12710002
C4915 0.012
R4925 27K
R4926 100K
R4923 100K
R4924 2200
QR4903
UNR9212J01
(INV.)
R4930 100K
R4929 27K
C4917 0.012
R4834 68K
C4819 0.1
C4818 0.1
R4833 68K
FL4901
VLF1486A206
Q4905
2SD2216J0L
(SWITCHING 5V)
R4919 4700
C4911 6V10
FL4902
VLF1486A206
CL6801
CL4804
R4902 0
TO FRAME GND
CL4802
CL4803
MIC
JK4901
K2HC105E0003
R4906 10K
Q4902
2SB1218A0L
(AMP)
R4907 150K
Q4901
2SD2216J0L
(AMP)
R4905 470
C4903 1
R4901 6800
C4901 2200P
R4908 56K
R4910 5600
R4909 1K
R4911 150
C4905 6V22
R4913 10K
Q4904
2SB1218A0L
(AMP)
R4914 150K
Q4903
2SD2216J0L
(AMP)
R4912 470
C4908 1
R4903 6800
C4902 2200P
R4915 56K
R4917 5600
R4916 1K
R4918 150
C4910 6V22
Q4906
2SD2216J0L
(AMP)
R4904 100K
R4920 10K
C4912 1
Q4907
2SD2216J0L
(INV.)

NOTE:
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NOTE:
THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS REC MODE.

G F E D C B A

1 2 3 4 5 6 7 8 9 10 11

Monitor C.B.A.

Integrated Circuit	
IC901	C-3
IC903	E-1
IC904	E-1
IC905	B-3

Transistor	
Q901	E-2
Q902	A-4
Q904	F-3
Q905	F-3

Transistor & Resistor	
QR901	B-3
QR902	C-3
QR903	B-3

Connector	
FP901	B-2
FP902	B-1
FP903	D-1
FP904	E-3
FP905	E-2

Test Point	
CL901	D-3
CL902	C-3
CL903	D-3
CL904	B-2
CL905	D-3
CL906	D-2
CL907	D-2
CL908	D-3
CL909	D-2
CL910	D-2
CL911	C-2
CL912	A-2
CL913	E-3
CL914	E-1
CL915	C-2
CL916	C-2
CL917	C-2
CL918	E-1
CL919	B-3
CL920	B-3
CL921	B-4
CL922	B-3
CL923	C-4
CL924	C-3
CL925	E-1
CL926	F-2
CL927	D-1
CL928	B-3
TL901	F-4
TL902	A-3
TL903	F-4

Diode	
D901	B-2
D902	B-3
D903	B-4
D904	A-4
D905	E-2
D906	E-2
D907	D-4

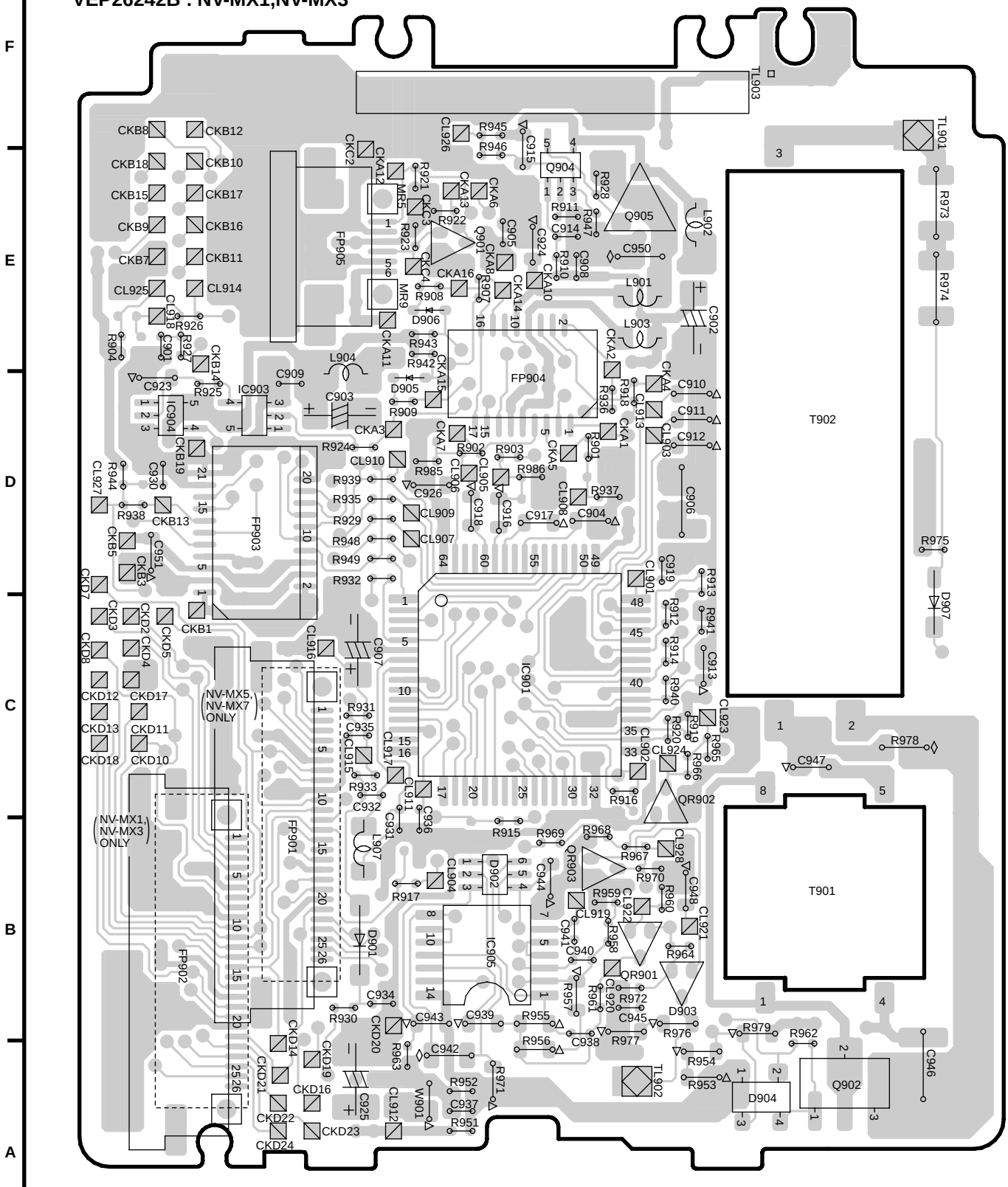
Coil	
L901	E-3
L902	F-4
L903	E-3
L904	E-2
L907	B-2

Transformer	
T901	B-4
T902	E-4

Capacitor	
C901	E-1
C902	E-4
C903	E-2
C904	D-3
C905	F-3
C906	D-4
C907	C-2
C908	E-3
C909	E-2
C910	E-4
C911	E-4
C912	D-4
C913	C-4
C914	E-3
C915	F-3
C916	D-3
C917	D-3
C918	D-2
C919	D-3
C923	E-1
C924	E-3
C925	A-2
C926	D-2
C930	D-1
C931	C-2
C932	C-2
C934	B-2
C935	C-2
C936	C-2
C937	A-2
C938	A-3
C939	B-3
C940	B-3
C941	B-3
C942	A-2
C943	B-2
C944	B-3
C945	B-3
C946	A-4
C947	C-4
C948	B-4
C950	E-3
C951	D-1

Resistor	
R901	D-3
R902	D-2
R903	D-3
R904	E-1
R907	E-3
R908	E-2
R909	E-2
R910	E-3
R911	F-3
R912	D-3
R913	D-4
R914	C-3
R915	C-3
R916	C-3
R917	B-2
R918	E-3
R919	C-4
R920	C-3
R921	F-2
R922	F-2
R923	E-2
R924	D-2
R925	E-1
R926	E-1
R927	E-1
R928	F-3
R929	D-2
R930	B-2
R931	C-2
R932	D-2
R933	C-2
R935	D-2
R936	E-3
R937	D-3
R938	D-1
R939	D-2
R940	C-3
R941	D-4
R942	E-2
R943	E-2
R944	D-1
R945	F-3
R946	F-3
R947	F-3
R948	D-2
R949	D-2
R951	A-2
R952	A-2
R953	A-4
R954	A-4
R955	B-3
R956	A-3
R957	B-3
R958	B-3
R959	B-3
R960	B-3
R961	B-3
R962	A-4
R963	A-2
R964	B-4
R965	C-4
R966	C-4
R967	B-3
R968	B-3
R969	B-3
R970	B-3
R971	A-3
R972	B-3
R973	F-4
R974	E-4
R975	D-4
R976	B-4
R977	A-3
R978	C-4
R979	A-4
R985	D-2
R986	D-3

MONITOR C.B.A.
VEP26242A : NV-MX5,NV-MX7
VEP26242B : NV-MX1,NV-MX3



NOTE:MULTILAYER C.B.A.

THIS C.B.A. IS Multi-Layer C.B.A. THIS CIRCUIT BOARD SHOWS COMPONENT LAYOUT-PATTERN FOR COMPONENT SIDE AND FOIL SIDE. LAYOUT-PATTERNS ARE SINGLE PATTERN FOR EACH SIDE THAT MAKE EASY TO SIGHT THE COMPONENT LAYOUT.

:VIDEO MAIN SIGNAL PATH

TO MAIN CONNECTION FP904

FP602-16,17	M FRP	1
FP602-15	M HD	2
FP602-14	M VD	3
FP602-13	M M PLL	4
FP602-12	R OUT	5
FP602-11	G OUT	6
FP602-10	B OUT	7
FP602-8,9	M 3V	8
FP602-8,9	M 3V	9
FP602-7	M 15V	10
FP602-6	HALL VCC	11
FP602-5	LCD RVS	12
FP602-4	LCD OPEN	13
FP602-3	LCD CS	14
FP602-2	LCD SD	15
FP602-1	LCD SCK	16
FP602-1	LCD SCK	17

TO MAIN CONNECTION FP903

FP601-19,20,21	SE GND	1
FP601-19,20,21	SE GND	2
FP601-17,18	NOREG GND	3
FP601-17,18	NOREG GND	4
FP601-15,16	NOREG	5
FP601-15,16	NOREG	6
FP601-14	M BL5V	7
FP601-13	CLAMP	8
FP601-12	BL BRIGHT (H)	9
FP601-11	M CHR R	10
FP601-10	M CHR G	11
FP601-9	M CHR B	12
FP601-8	PLL DAC	13
FP601-7	V COM DAC	14
FP601-6	M B OUT	15
FP601-5	M G OUT	16
FP601-4	M R OUT	17
FP601-3	MOM V COM	18
FP601-1,2	GND	19
FP601-1,2	GND	20
FP601-1,2	GND	21

TO MONITOR LCD PANEL
FP901:NV-MX5,NV-MX7
FP902:NV-MX1,NV-MX3

		26
COM		25
CK V2		24
CK V1		23
X ST V		22
ST V		21
V VSS		20
X ENB		19
ENB		18
V VDD		17
CSV		16
		15
PCD		14
B		13
R		12
G		11
CS H		10
H VSS		9
X ST H		8
ST H		7
H VDD		6
X PCG		5
PCG		4
CK H2		3
CK H1		2
		1

FP905

RVS (L)		1
RVS GND		2
RVS VCC		3
OPEN (H)		4
OPEN GND		5
OPEN VCC		6

HALL SENSOR FLEX. UNIT (VEK9086)

NOTE:
THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.(MONITOR:OPEN)

NOTE:
DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

IC901 C0HBA0000053 (LCD DRIVE)

IC903 C0JBAB000350

IC904 C0JBAB000391

IC905 C0JBAB000247

Q901 B1ABCF000077 (INV.)

Q902 B1CFNG000001 (BACK LIGHT CONTROL)

Q904 XP0150100L (POWER CONTROL)

Q905 B1ACGD000006 (SWITCHING 15V)

QR901 B1GBCFNA0014 (BACK LIGHT CONTROL)

QR902 B1GBCFNA0014 (BACK LIGHT CONTROL)

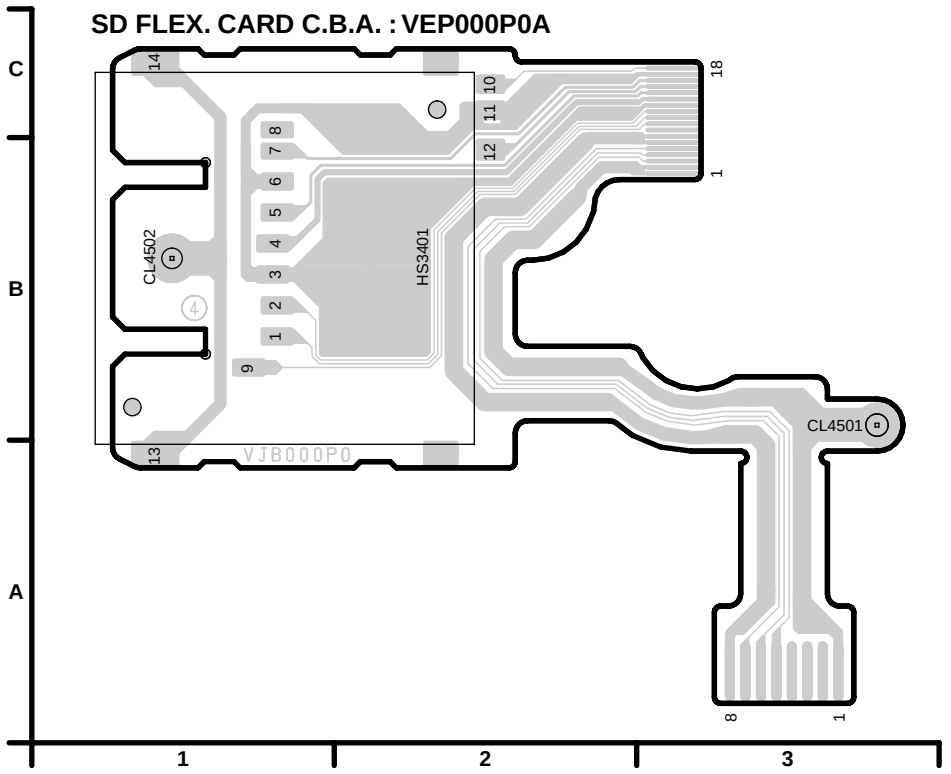
QR903 B1GBBFJN0001 (BACK LIGHT CONTROL)

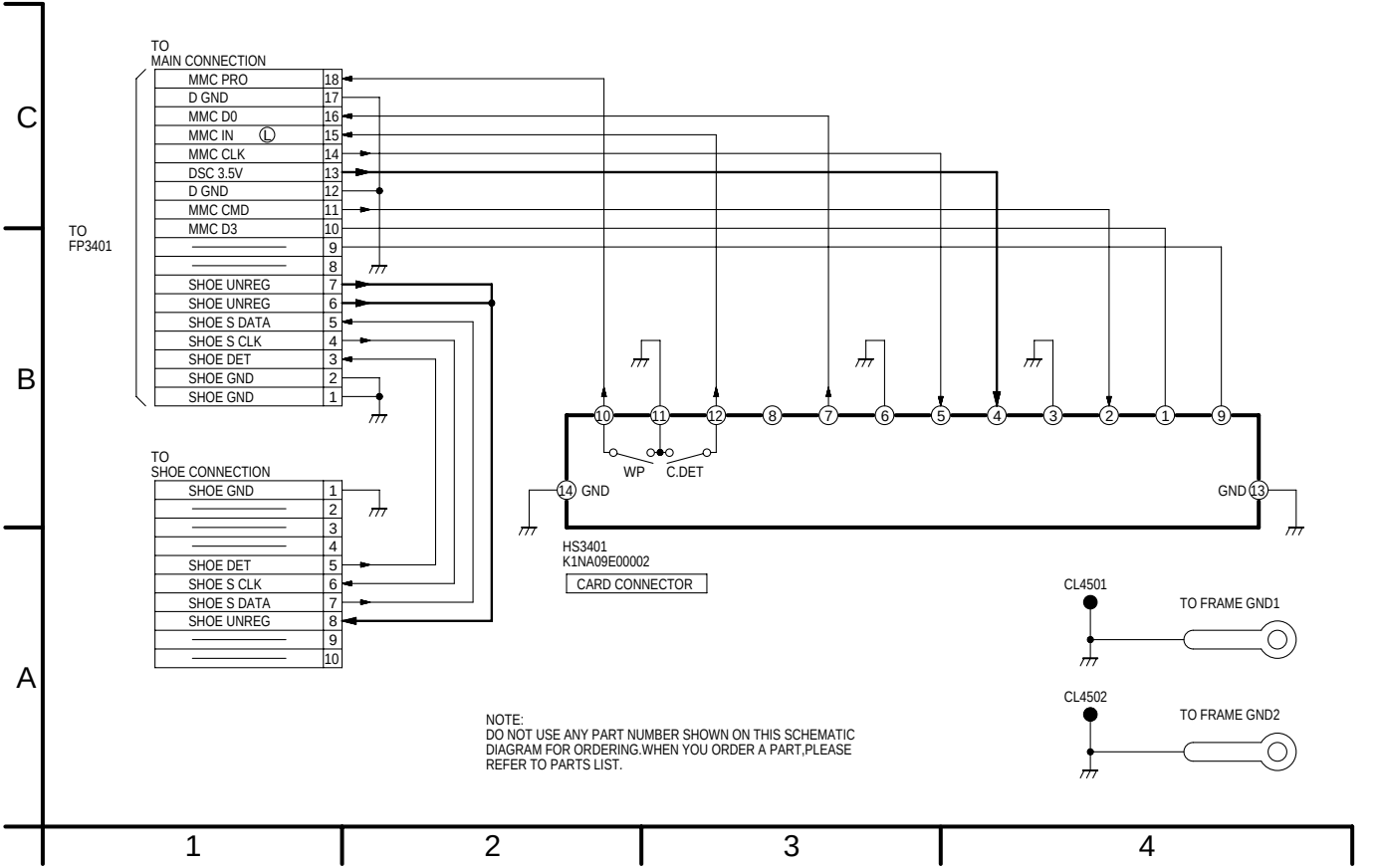
| | | |

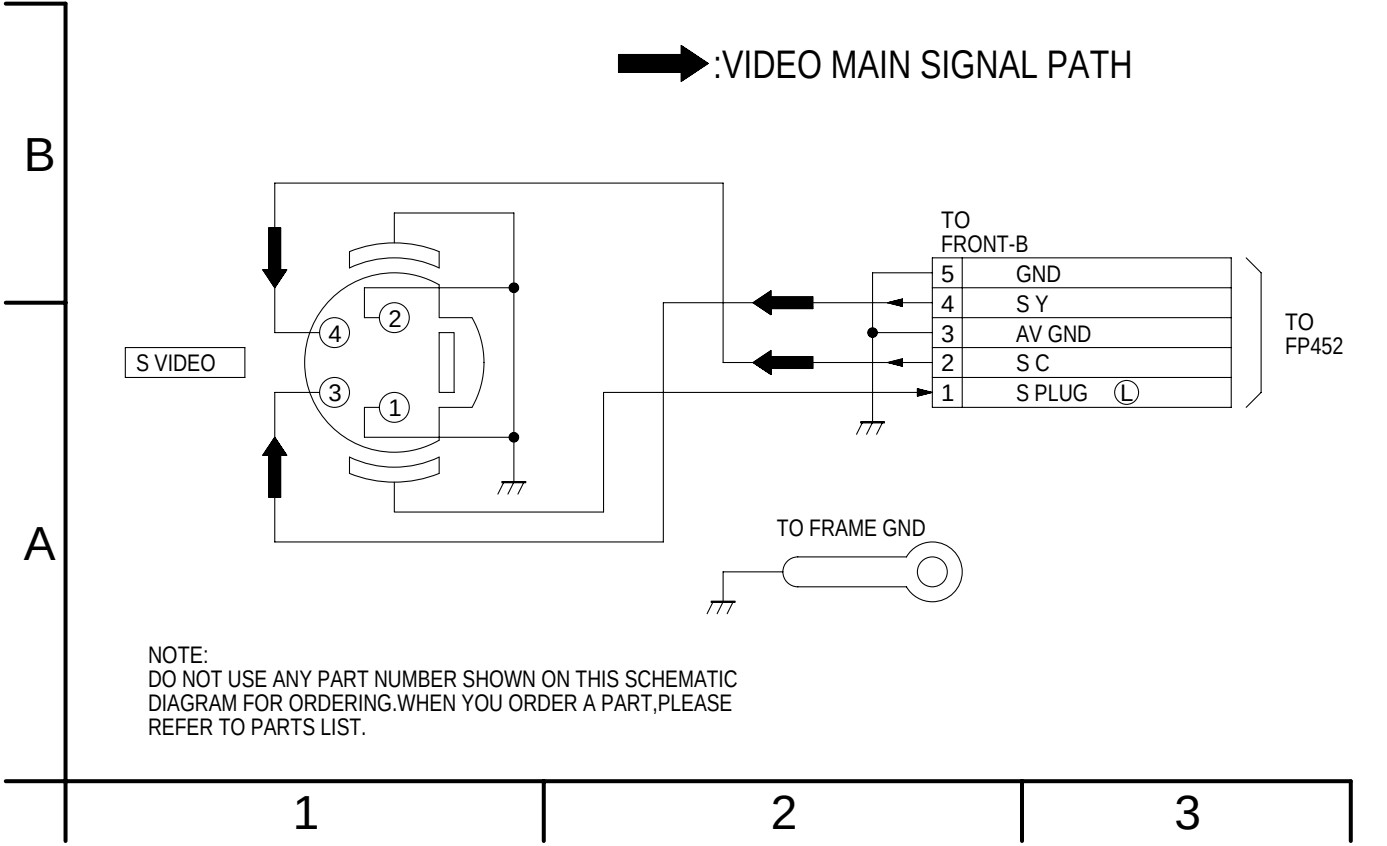
CAMERA LENS UNIT
ZOOM M
FOCUS M
IRIS
CCD C.B.A.
CCD
HOTSHOE
(NV-MX5,NV-MX7 ONLY)
SD/MMC
S-VIDEO IN/OUT
VIDEO IN/OUT
A IN/OUT HP OUT
POWER
COMP
COPWER CONTROL
3PIN REG
CAMERA
CDS.AGC A/D
CG.SSG V DRIVE
2FCK OSC
MEGA I/F
CAMERA Y/C
PB Y/C
DSP
IR SENSOR
EEPROM
CAMERA µCOM
LENS DRIVE
LPF
ZOOM,FOCUS.IRIS DRIVE
REG
CAMERA C.B.A.(MODULE)
EX INPUT
SW.OPAMP
EXT INPUT
(NV-MX1,NV-MX5 ONLY)
AV DRIVER
AV OUTPUT DRIVER
SPEAKER
2ECM MIC
OP AMP
EVR
EXT MIC
(NV-MX5,NV-MX7 ONLY)
CARD I/F G/A
SIGNAL PROSESSOR
AUDIO DSP
MEMORY
SDRAM
DSC
VIDEO2
AUDIO A/D,D/A
COMPRESOR,SHUFFLE, SHUFFLE MEMORY, AUDIO PROCESSOR, ECC,ECC MEMORY
4MDRAM
5MDRAM
LUPIN
HEAD/REC AMP
H/R AMP
HEAD TAPE
VIDEO3
RF
VITERBI
VIDEO 1
LCD RGB
VIDEO I/O
VCO
DIGITAL-I/F
DIGITAL I/F
DV JACK
DV BUS
CONTROL
RTC
CONTROL µCOM
DAC
EEP ROM
REG
RS232C DRIVE
RS 232C JACK
POWER µCOM
RESET
REG
REG
COMP
COMP
DRIVE
MOTOR DRIVE
CYL MOTOR
CAP MOTOR
L MOTOR
EDIT 5PIN
EVF C.B.A.
TRANSFORMER
BACKLIGHT
EVF LCD PANEL
LCD
12V REG
CONTROLLER& SIGNAL PROCESSOR
MONITOR C.B.A.
HALL SENSOR
MONITOR LCD PANEL
CONTROLLER& SIGNAL PROCESSOR
VTR MAIN C.B.A.(MODULE)

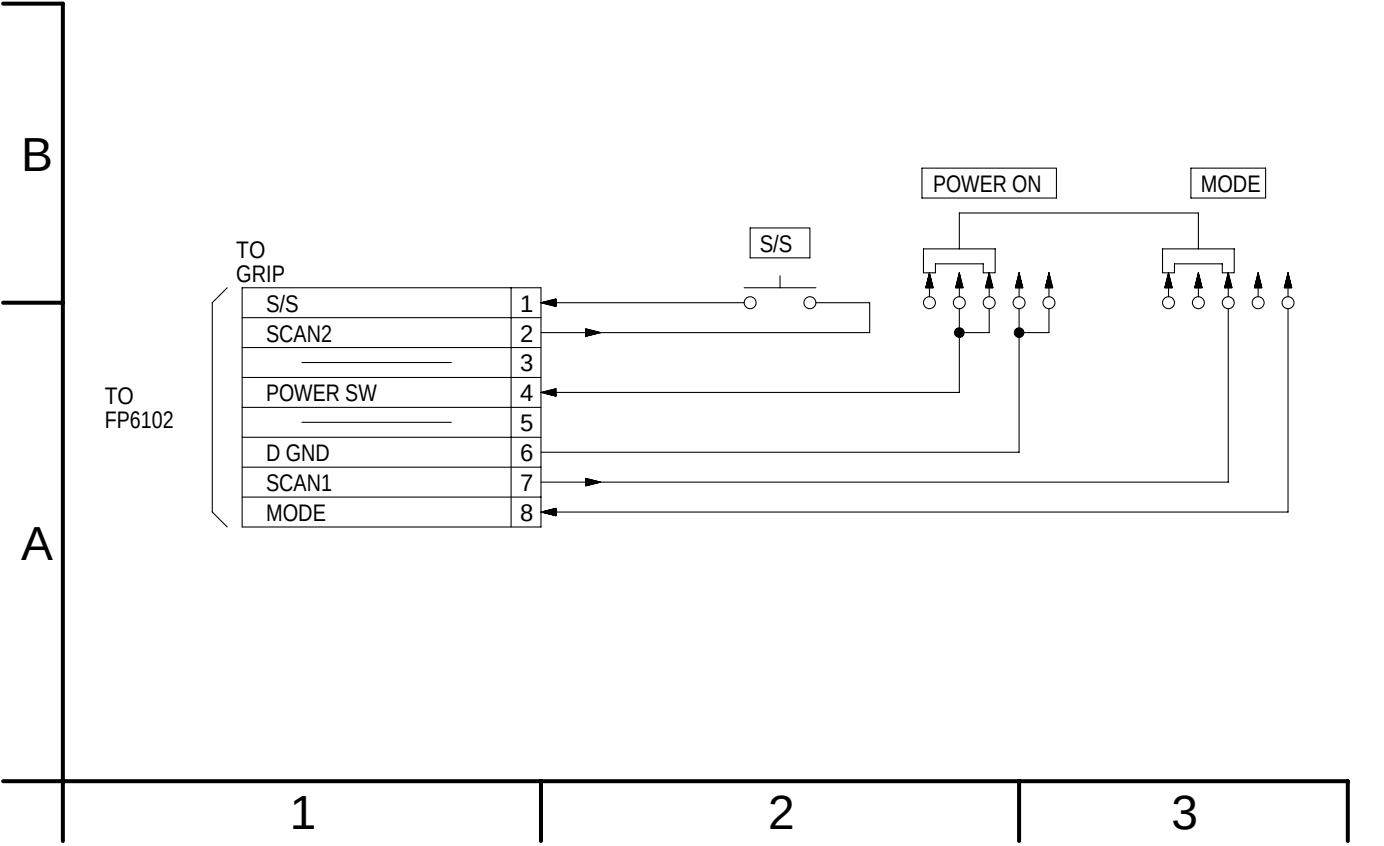
E
D
C
B
A
1
2
3
4
5
6
7

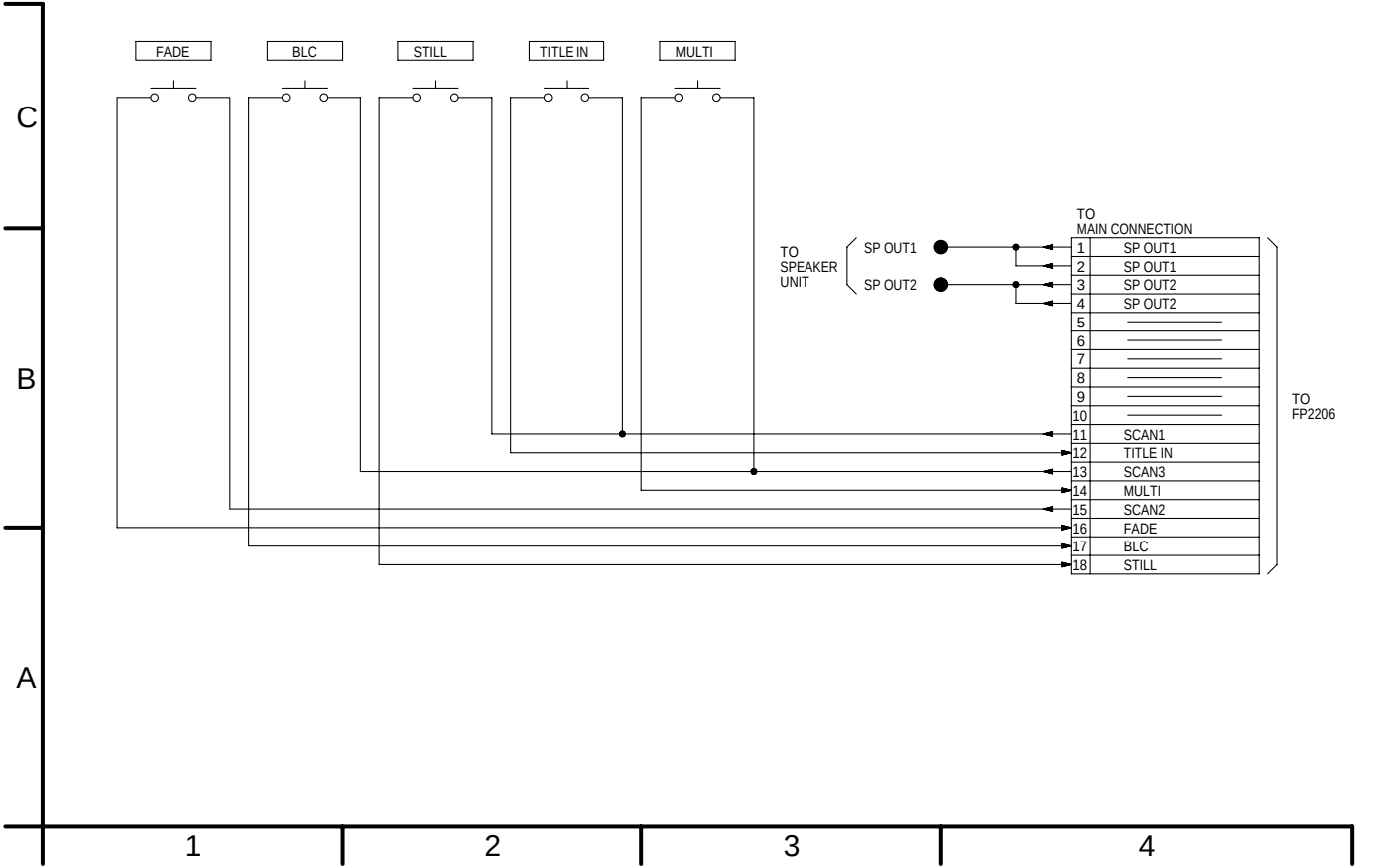
SD FLEX. CARD C.B.A. : VEP000P0A




TO
MAIN CONNECTION
MMC PRO 18
D GND 17
MMC D0 16
MMC IN Ⓛ 15
MMC CLK 14
DSC 3.5V 13
D GND 12
MMC CMD 11
MMC D3 10
9
8
SHOE UNREG 7
SHOE UNREG 6
SHOE S DATA 5
SHOE S CLK 4
SHOE DET 3
SHOE GND 2
SHOE GND 1
TO
FP3401
TO
SHOE CONNECTION
SHOE GND 1
2
3
4
SHOE DET 5
SHOE S CLK 6
SHOE S DATA 7
SHOE UNREG 8
9
10
10 11 12 8 7 6 5 4 3 2 1 9
WP C.DET
14 GND
GND 13
HS3401
K1NA09E00002
CARD CONNECTOR
CL4501
TO FRAME GND1
CL4502
TO FRAME GND2
NOTE:
DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.
C
B
A
1
2
3
4


:VIDEO MAIN SIGNAL PATH
B
A
S VIDEO
4
2
3
1
TO
FRONT-B
5 GND
4 S Y
3 AV GND
2 S C
1 S PLUG L
TO
FP452
TO FRAME GND
NOTE:
DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.
1
2
3


B
A
1
2
3
TO
GRIP
TO
FP6102
S/S
SCAN2
POWER SW
D GND
SCAN1
MODE
1
2
3
4
5
6
7
8
S/S
POWER ON
MODE


FADE
BLC
STILL
TITLE IN
MULTI
TO
SPEAKER
UNIT
SP OUT1
SP OUT2
TO
MAIN CONNECTION
1 SP OUT1
2 SP OUT1
3 SP OUT2
4 SP OUT2
5
6
7
8
9
10
11 SCAN1
12 TITLE IN
13 SCAN3
14 MULTI
15 SCAN2
16 FADE
17 BLC
18 STILL
TO
FP2206
C
B
A
1
2
3
4

	INITIAL/LOGO	ABBREVIATIONS
	EQ	Equalizer
	EVF	Electric View Finder
	EXT DC	External DC (AC Adaptor)
	EXT DC(H)	AC Adaptor DC (H)
	EXT NOREG	AC Adaptor 6V
	EXT S DATA	Serial Data for Edit
	EXT SCK	Serial Clock for Edit
	EZOOM	Electric Zoom
F		
	F ENC	Lens F-Value
	FACT MODE	Factry Mode (not used in the service)
	FB	Feed Back
	FC	Saw Tooth Signal In
	FCK	Clock
	FCO	Saw Tooth Signal Generator
	FENC	Focus Encoder
	FEND	Frame End Pulse
	FH2B	FH/2 (15.625KHz / 2=7.8125KHz)
	FIX OSD	Auto Tracking Off (H)
	FLICK	Flicker Output
	FM	Field Memory
	FM0-7	Field Memory 0-7
	FMCO0-3	Field Memory Chrominance Out 0-4
	FMDIR	Focus Motor Direction
	FMOEM	Field Memory Enable
	FMOEO	Field Memory Enable
	FMT1-4	Focus Motor Terminal 1-4
	FMY00-07	Field Memory Luminance Out 0-7
	FMYI0-07	Field Memory Luminance In 0-7
	FNO	F Value
	FPS	Frame Refference Signal
	FR	Capstan Reverse High
	FRP	Frame Refference Pulse
	FRPSO	Frame Start Pulse
G	G1, G2, G3	Gap 1, 2 and 3
	GCA	Gain Control AMP
	GCNT	Gain Control
	G-CNT	AGC Adjustment
	GCTRL	Gain Control
	GENE	Generator
	GF	FG AMP Terminal
	GSW	Ground for Switching Power
H	H/M/N	Hi-Fi / Mix / Normal
	H/N	Hi-Fi / Normal
	H1, 2	H. CCD Drive Pulse
	HAP	Horizontal Aperture
	HASW	Head AMP Switching Pulse
	HB	Hall Bias
	HBR SET	High Brightness Set
	HBRST	High Brightness Set
	HCLR	High Clear
	HCP	Shift Clock for Horizontal Drive

	INITIAL/LOGO	ABBREVIATIONS
	HD	Horizontal Drive Pulse
	HDTV	High Definition TV
	HEX	Hexadecimal
	HG	Hall Gain
	HID	Head Switching Pulse
	HLT	High Bright Signal
	HALL IN(+), (–)	Input Signal from Hall IC
	HP	Headphone
	HPF	High Pass Filter
	HSE	Modulated Data Output
	HSP	Timing Pulse for Shaffling Memory
	HSS	Horizontal Sync Signal
	HSW	Head Switching Pulse
	HS-WT	High Speed Zoom
	HSZ	High Speed Zoom
I	I/F	Interface
	I-2 C	Inter Integrated Circuit
	ID(H)	Wide Television (H)
	IMP	Inter Microprocessor Protocol
	INF	CCD Input Signal 1
	INF	Input Frame Signal
	INS	CCD Input SIgnal 2
	INTER	Interval Recording
	INV	Inverter
	IOU	R-Y Analogue Signal Output
	IOV	B-Y Analogue Signal Output
	IOY	Y Analogue Signal Output
	IR	Infrared Rays
	IRDET	Imfrared Ray Detection
	IREF	Current Adjustment Terminal
	IRIS/SH	Iris / Shutter Control
	IRQ	Interrupt Request
	ITI	Insert & Track Information
J	JPEG	Joint Photographic Image Cording Experts Group
K	KANDO	Digital Gain Up
	KB	Carrier Balance
	KEY IN	Key Scan
	KND	Digital Gain Up
	KNEE	Luminance Compensate
L	LCD	Liquid Crystal Display
	LCD P(L)	LCD Power On (L)
	LD	Load Pulse
	LDD	Liquid Direct Drive
	LEDCNT	LED Control
	LI-BATT	Lithium Battery
	LOAD	Loading
	LOAD F, R	Loading Direction (F: Forward / R: Reverse)
	LPF	Low Pass Filter
	LRMONO	Monoral Audio (L + R)
	LSB	Least Significant Bit

INITIAL/LOGO		ABBREVIATIONS
	LVL	LPF Switch for Auto Focus
M	M1-3	Motor Coil Terminal 1 to 3
	MA0-5	Microprocessor Address Data 0-5
	Mbps	Megahertz Bit Per Second
	MD	Modulation
	MD0-7	Microprocessor Data 0-7
	MDT0-7	Microprocessor Data 0-7
	ME (TAPE)	Metal Evaporated (Tape)
	MENB	Focus Motor Enable
	MFF	Manual Focus Far
	MFN	Manual Focus Near
	MHSYNC	Monitor Horizontal Sync Signal
	MIC	Memory In Cassette
	MIG	Meta In Gap
	MIX N.R.D.	Non Rec Data Mix
	MOD	Modulation
	MOUT	Mic Out
	MP (TAPE)	Metal Particle (Tape)
	MPEG	Moving Picture Image Cording Experts Group
	MPEG2	Moving Picture Image Cording Experts Group Phase 2
	MRST	Focus Motor Reset
	MSB	Most Signal Bit
	MVSYNC	Monitor Vertical Sync Signal
N	N/F	Near/Far Focus
	N/P	NTSC/PAL
	NB1-3	Base for NPN Transistor
	NC	No Connection
	NC1-3	Corrector of NPN Transistor
	NCLR	Power On Reset
	NCP1	Clamp Pulse
	NCP2+VDH	Clamp Pulse + Horizontal Drive Pulse
	NCP2+VDM	Clamp Pulse + Gate Pulse
	NDE	Non Liner De-Emphasis
	NE	Emitor of NPN Transistor
	NLE	Non Liner Emphasis
	NR	Noise Reduction
	NRD	Non Rec Data
	NRD BLK	Non Rec Data Blanking
	NRD CLK	No Rec Data Clock
	NRE	Read Enable Input (Low Active)
	NWE	Write Enable (Low Active)
O	OB	Optical Black
	OBCNT	Optical Black Control
	OBREF	Reference Voltage for Optical Black Control
	OE	Output Enable
	OFH	Horizontal Counted Down Clock Signal (Reference)
	OFS	Offset
	OP	Operation AMP Output
	OSD	ON Screen Display
	OVL	Overlap Pulse
	OZ	Optical Zoom

INITIAL/LOGO		ABBREVIATIONS
P	P SW	Power Switch
	PB1-3	PNP Base 1-3
	PBCTL	Play Back Control
	PBCTL	Pre-Branking Control
	PBH	Head Amp Switch
	PBLK	Pre-Blanking (Pulse)
	PC1-3	Corrector of PNP Transistor
	PCBM	Carrier Balance
	PCH	Phase Compensator (Hall AMP)
	PCI	Phase Compensator (Current)
	PCO	Phase Compensator Out
	PCS	Switching Power Control
	PCV	Phase Compensator (Voltage)
	PE	Emitter of PNP Transistor
	PED	Pedestal
	PEDECNT	Pedestal Control
	PENO	Alarm (L)
	PFP	Pilot Frame Position
	PGA, B	Power Ground A, B
	PGC	Pulse Generator Comparator
	PGI	Pulse Generator Input
	PGMM	Pulse Generator Monostable Multivibrator
	PGO	Output of Pulse Generator AMP
	PMODE	Select Signal for Normal / Wide Screen
	PON	Power On
	POR	Power On Reset
	POSCOM	Common Position
	PREAMP	Pre-AMP
	PREBLK	Pre-Blanking
	PT	Protect for V Voltage
	PWM	Pulse Width Modulation
	PWMB	Pulse Width Modulation Pulse
Q	Q2H	Source Output Select
R	R CTL P	Recorded Control Pulse (+)
	R CTL R	Recorded Control Pulse (–)
	R/B	Read/Busy
	R/L	Direction Control for Data Transmition
	RA	Recording AMP
	RA1	Rec AMP 1
	RAC AC	Rec Audio Current
	RAD	Read Address Data
	RAE	Read Address Enable
	RB	Read Busy
	R-B	R Bias
	RCB	R Carrier Balance
	RE	Read Enable
	RE(F), (S)	Rotary Erase Head Transformer
	REB	R Bias
	REC CC	Rec Current Control
	REC CCNT	Rec Current Control
	RECCTRL	Recording Control Pulse
	RECI	Rec Amp Switch

INITIAL/LOGO		ABBREVIATIONS
	RENCF	Lens Control (Forward)
	RENCR	Lens Control (Reverse)
	RERASE	Rotary Erase Head
	RGBIV1-2	1V Inverted Signal 1-2
	RGO R/G OFF	Offset Voltage for AWT R
	RSF	Capstan Direction (Reverse / Stop / Forward)
	RST	Reset
	RSTB	R Strobe
	RSTPWD	Reset Power Down Input
	RSTR	Reset Read
	RSTW	Reset Write
	RT	Saw Tooth Terminal
	RVCO	Resister for Oscillation
	RW	Read Write
	RWAE	Read Write Enable
S	S PHOT	Supply Photo Transistor
	S/H	Sampling Hold
	S/S	Start/Stop
	SBD	Serial Data
	SBI	Serial Data Input
	SBO	Serial Data Output
	SBT	Serial Clock
	SCAN0-5	Key Scan 0-5
	SCK	Serial Clock
	SCR	Search
	SCR, S.C.R.	Still Cue Review
	SEG.	Segment
	SET	White Balance Set
	SH/IRIS	Shutter/Iris Control
	SHIFT	Capasitor for Phase Shift
	SI	Serial Data Input
	SIC	Shift In Clock Input
	SIOC	Serial In/Out Control
	SMCE	Shaffling Memory Chip Enable
	SMRS	Shaffling Memory Read Strobe
	SMWE	Shaffling Memory Write Enable
	SMWS	Shaffling Memory Read Strobe
	SNAP	Snap Shot
	SNS LED	Sensor LED
	SO	Serial Data Output
	SPA	ATF Smapling Pulse
	SPEN	8 Bit Shift Register Enable
	SPK	Speaker
	SPO	Reset for Switcing Power
	SPST	8 Bit Shift Register Strobe
	SREELP	Supply Reel Pulse
	SRT	Start
	SSA	Start Sync block Area
	SSW	Select Signal for Low Pass Filter
	ST5V	Safety Tab 5V
	STAB	Safety Tab Switch
	STB	Stand by Signal
	STB	Strobe
	SWB	Switching Pre-Drive Pulse
	SYL EC	Cylinder Torque Control
	SYL FG	Cylinder FG
T	T PHOT	Take-up Photo Transistor
	TBC	Time Base Conntrol
	TFT	Thim Film Transistor
	TH	Thermostat for Battery
	TI	Test Mode Select
	TL	Torque Limit
	TM	Sub Code
	TMD	Sub Code Data
	TRE	Tracking Error Signal
	TREEL(P)	Take-up Reel (Pulse)
	TRFIX	Tracking Fix
	TRIWAVE	Tracking Wave
	TRP	Tracking Position
	TRP	Trap
	TSR	Head Switching Refference
	TST	Time Scale Transfer
U	U/V SEL	R-Y/B-Y Select Signal
	UNLOAD	Un-Loading
	UNRE	Microprocessor Read Enable
	UNWE	Microprocessor Write Enable
	UV	R-Y/B-Y
	UV SEL	R-Y/B-Y Select Signal
V	V1-V4	V. CCD Drive Pulse
	VB	VH Filter Switching
	VCE	Power Terminal
	VCNTL	Video Control
	VCO	Voltage Control Oscillator
	VCP	Shift Clock Output for Vertical Drive
	VCTLD	Video Control
	VCTRL	Voltage Charge Control
	VD	Vertical Drive Pulse
	VDDX	X Drive Power for Colour LCD
	VDDXY	XY Drive Power for Colour LCD
	VDDY	Y Drive Power for Colour LCD
	VDREC	Video Delayed Rec
	Vgg	Voltage for Gate IC
	Vgl	Gate off Voltage
	VID	Video Signal Out
	VIN	Video In
	VITC	Vertical Interval Time Code
	VITERBI	One of Signal Detection Method
	VL	Low Voltage
	VLC	Variable Length Cording
	VLOCKP	Artificial Sync Pulse
	VLP	Artificial Sync Pulse
	VM	Motor Voltage
	VMD	Velocity Mode Data
	VMD1-3	Electric Shutter Mode

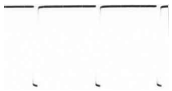
INITIAL/LOGO		ABBREVIATIONS
	VMODE	NTSC/PAL Select Switch
	VMVH	VH Filter Switching
	VORP	Video Overlap
	VRB	Voltage Refference Bottom
	VRBS	Voltage Refference Bottom Output
	VREF1R3V	Refference Voltage 1.3V
	VREF3R3V	Refference Voltage 3.3V
	VREFH	Refference Voltage High Side
	VREFL	Refference Voltage Low Side
	VRI	Refference Voltage Input
	VRO	Refference Voltage Output
	VRT	Voltage Refference Top
	VRTS	Voltage Refference Top Output
	VS	Switching Comparator
	VSS	Vertical Sync Signal
	VSSX	X Driver Power for Colour LCD
	VSSXY	X-Y Driver Power for Colour LCD
W	W/N	Mode Select for Window Mode
	W/N	Wide / Normal
	WAD	Write Address Enable
	WAE	Write Address Enable
	WAERAE	Write Address Enable
	WARI	Interrupt
	WB	White Balance
	WE	Write Enable
	WEM	Memory Write Enable
	WHD	Wide Horizontal Drive Pulse
	WIDE A	Wide Zoom
	WSB	B AGC Control
	WSR	R AGC Control
	WTV	Wide TV
X	XP	FG Logic Reset
Y	Y FM0-7	Y Field Memory 0-7
	YCE	Cylinder Error Code
	YGC	Y Gain Control
	YMO 0-7	Y Field Memory 0-7
	YNCST	Noize Canceller
	YNR	Luminance Noise Reduction
	YSDP 0-7	Digital Y Out 0-7
Z	Z.ENC	Zoom Encoder
	Z.MIC	Zoom Mic
	ZENC	Zoom Encoder Output
	ZMDIR	Zoom Drive
	ZMEN	Zoom Enable
	ZMT	Zoom Motor Tele Side
	ZMT (+)/(–)	Zoom Motor (+)/(–)
	ZMTER	Zoom Motor Tele Side
	ZMW	Zoom Motor Wide Side
	ZSW	Zoom Switch

INITIAL/LOGO	ABBREVIATIONS

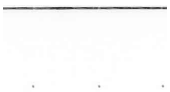
FP801-16 STOP
11.0Vp-p (20usec./div.)
COLOUR BAR

FP801-17 STOP
11.0Vp-p (20usec./div.)
COLOUR BAR

FP801-18 STOP
11.0Vp-p (20usec./div.)
COLOUR BAR



IC901-2 STOP
2.7Vp-p (20usec./div.)
COLOUR BAR



IC901-3 STOP
3.0Vp-p (20usec./div.)
COLOUR BAR

IC901-40 STOP
11.0Vp-p (20usec./div.)
COLOUR BAR

IC901-43 STOP
11.0Vp-p (20usec./div.)
COLOUR BAR

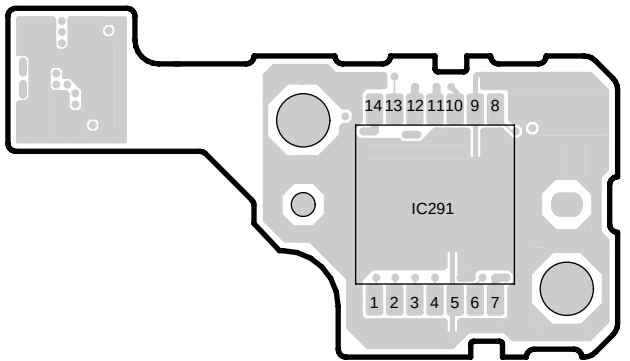
IC901-45 STOP
11.0Vp-p (20usec./div.)
COLOUR BAR

IC901-58 STOP
0.45Vp-p (20usec./div.)
COLOUR BAR

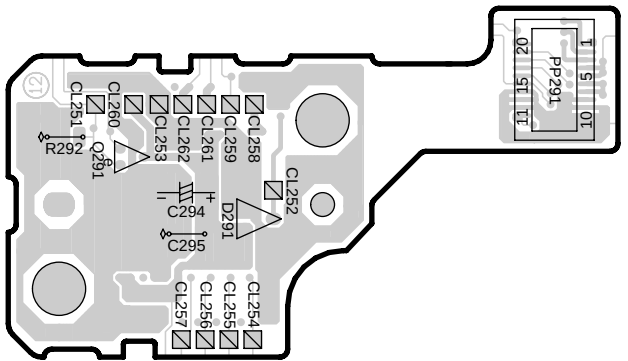
IC901-59 STOP
0.4Vp-p (20usec./div.)
COLOUR BAR

IC901-60 STOP
0.35Vp-p (20usec./div.)
COLOUR BAR

CCD FLEX. CARD C.B.A. : VEP22302



(COMPONENT SIDE)



(FOIL SIDE)

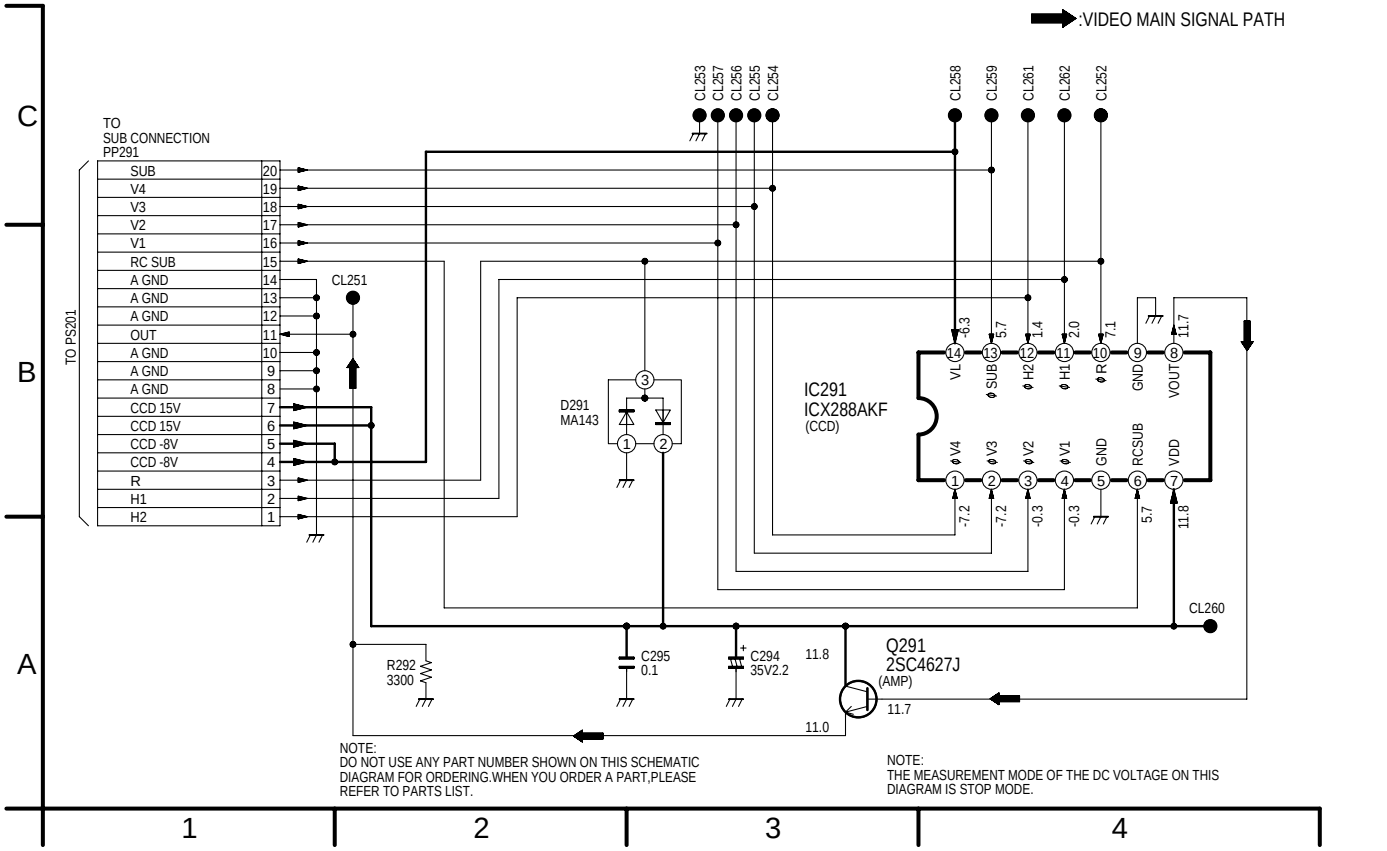
NOTE:MULTILAYER C.B.A.

THIS C.B.A. IS Multi-Layer C.B.A. THIS CIRCUIT BOARD SHOWS COMPONENT LAYOUT-PATTERN FOR COMPONENT SIDE AND FOIL SIDE. LAYOUT-PATTERNS ARE SINGLE PATTERN FOR EACH SIDE THAT MAKE EASY TO SIGHT THE COMPONENT LAYOUT.

B

A

1 2 3 4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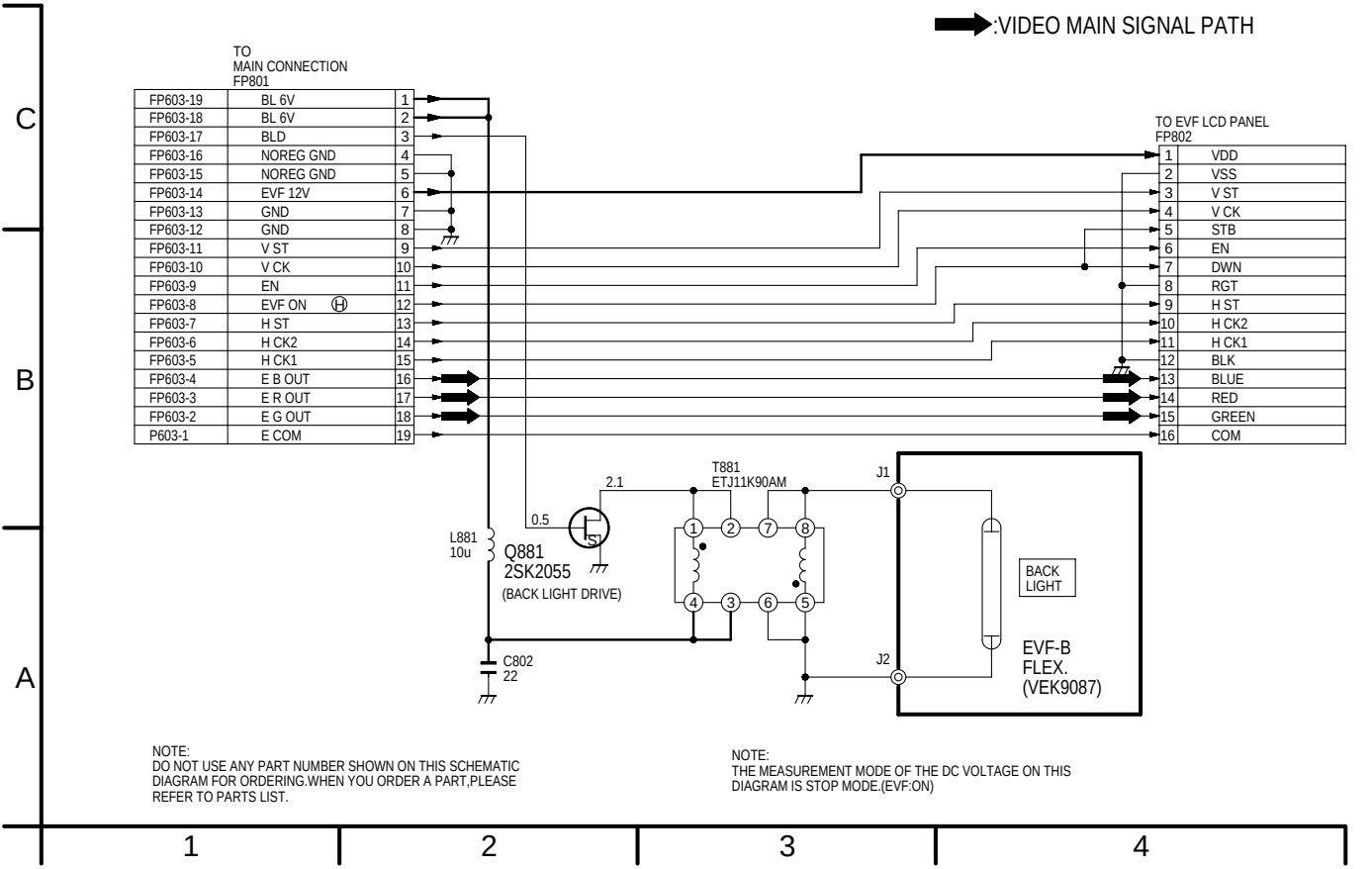
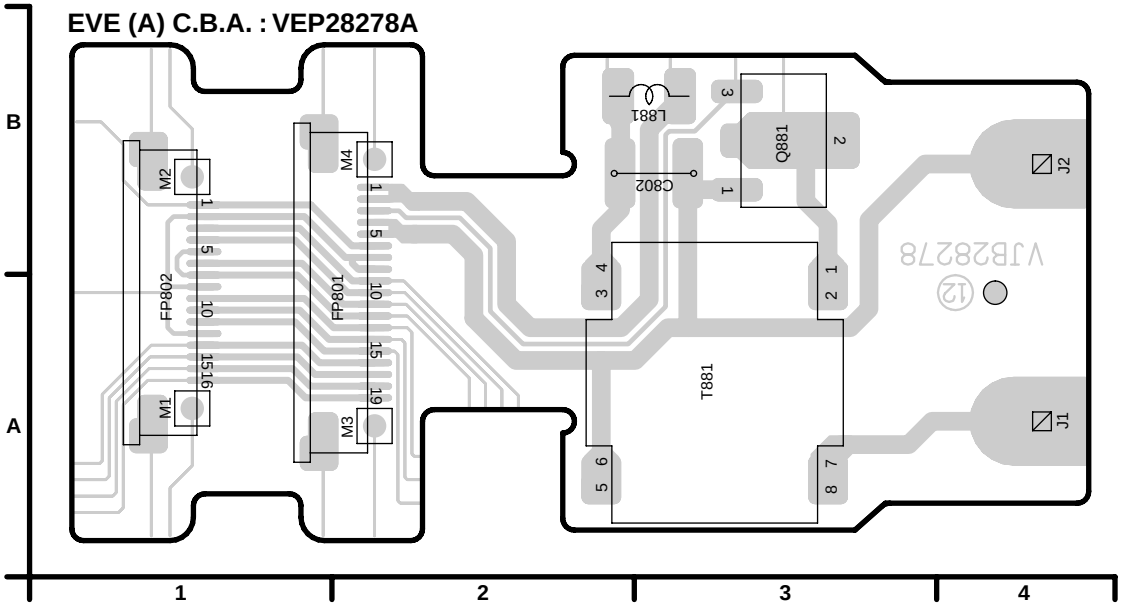
C
B
A
1
2
3
4
TO
SUB CONNECTION
PP291
TO PS201
SUB 20
V4 19
V3 18
V2 17
V1 16
RC SUB 15
A GND 14
A GND 13
A GND 12
OUT 11
A GND 10
A GND 9
A GND 8
CCD 15V 7
CCD 15V 6
CCD -8V 5
CCD -8V 4
R 3
H1 2
H2 1
CL251
CL253
CL257
CL256
CL255
CL254
CL258
CL259
CL261
CL262
CL252
CL260
D291
MA143
IC291
ICX288AKF
(CCD)
VL 6.3
ϕSUB 5.7
ϕH2 1.4
ϕH1 2.0
ϕR 7.1
GND
VOUT 11.7
ϕV4 -7.2
ϕV3 -7.2
ϕV2 -0.3
ϕV1 -0.3
GND
RCSUB 5.7
VDD 11.8
R292
3300
C295
0.1
C294
35V2.2
11.8
Q291
2SC4627J
(AMP)
11.7
11.0
NOTE:
DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.
NOTE:
THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

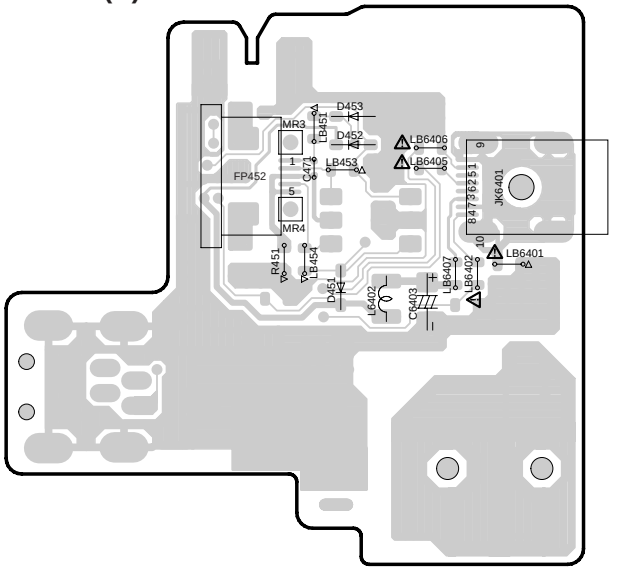


NOTE:
DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

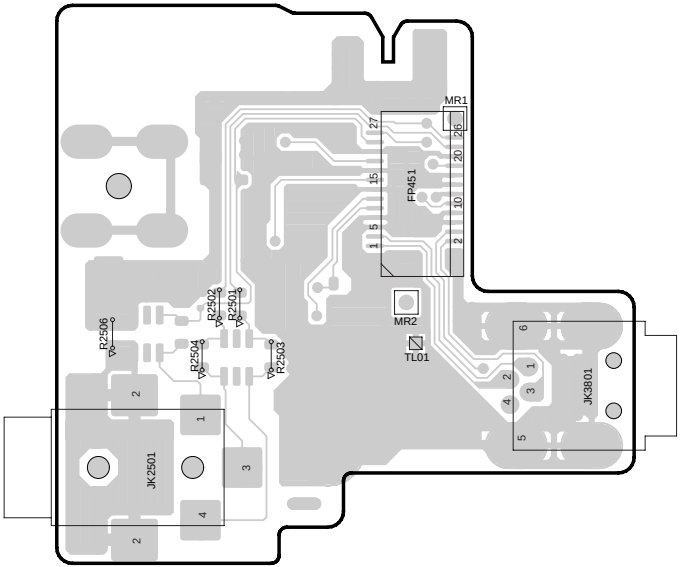
NOTE:
THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.(EVF:ON)


EVE (A) C.B.A. : VEP28278A
B
A
1
2
3
4
M2
M1
M4
M3
FP802
FP801
L881
C802
Q881
T881
J2
J1
VJB28278
(12)

FRONT (B) C.B.A. : VEP27212B



(COMPONENT SIDE)



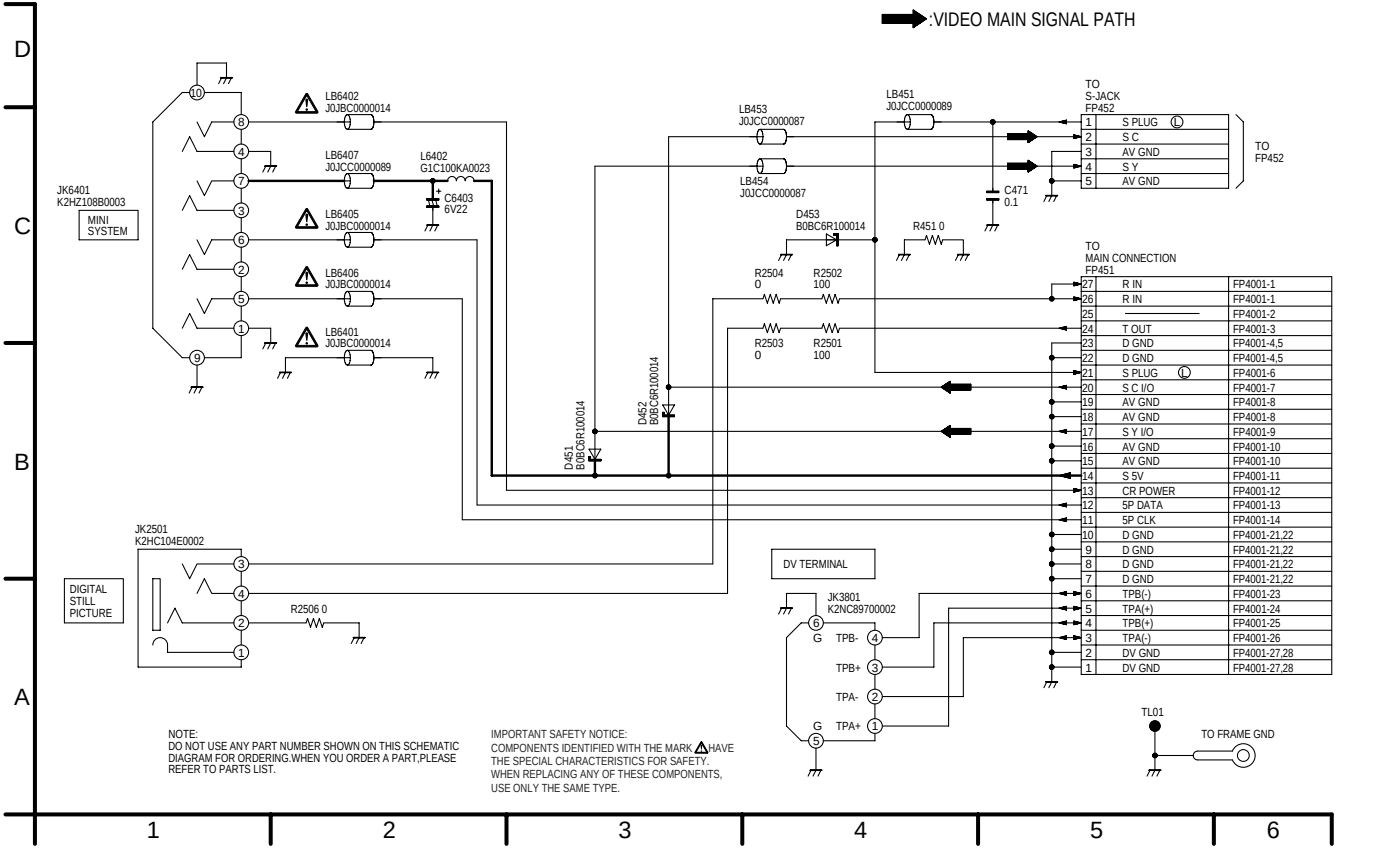
(FOIL SIDE)

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

B

A

1 2 3 4 5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JK6401
K2HZ108B0003
MINI SYSTEM
LB6402
J0JBC0000014
LB6407
J0JCC0000089
L6402
G1C100KA0023
C6403
6V22
LB6405
J0JBC0000014
LB6406
J0JBC0000014
LB6401
J0JBC0000014
LB453
J0JCC0000087
LB454
J0JCC0000087
LB451
J0JCC0000089
C471
0.1
TO
S-JACK
FP452
1 S PLUG (L)
2 S C
3 AV GND
4 S Y
5 AV GND
TO
FP452
D453
B0BC6R100014
R451 0
TO
MAIN CONNECTION
FP451
R2504
0
R2502
100
R2503
0
R2501
100
D452
B0BC6R100014
D451
B0BC6R100014
27 R IN FP4001-1
26 R IN FP4001-1
25 ——— FP4001-2
24 T OUT FP4001-3
23 D GND FP4001-4,5
22 D GND FP4001-4,5
21 S PLUG (L) FP4001-6
20 S C I/O FP4001-7
19 AV GND FP4001-8
18 AV GND FP4001-8
17 S Y I/O FP4001-9
16 AV GND FP4001-10
15 AV GND FP4001-10
14 S 5V FP4001-11
13 CR POWER FP4001-12
12 5P DATA FP4001-13
11 5P CLK FP4001-14
10 D GND FP4001-21,22
9 D GND FP4001-21,22
8 D GND FP4001-21,22
7 D GND FP4001-21,22
6 TPB(-) FP4001-23
5 TPA(+) FP4001-24
4 TPB(+) FP4001-25
3 TPA(-) FP4001-26
2 DV GND FP4001-27,28
1 DV GND FP4001-27,28
JK2501
K2HC104E0002
DIGITAL
STILL
PICTURE
R2506 0
DV TERMINAL
JK3801
K2NC89700002
G TPB- 4
TPB+ 3
TPA- 2
G TPA+ 1
TL01
TO FRAME GND
NOTE:
DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.
D
C
B
A
1
2
3
4
5
6

Service Manual

TOP NEXT

ORDER NO. VMD0109026C8

Service Manual

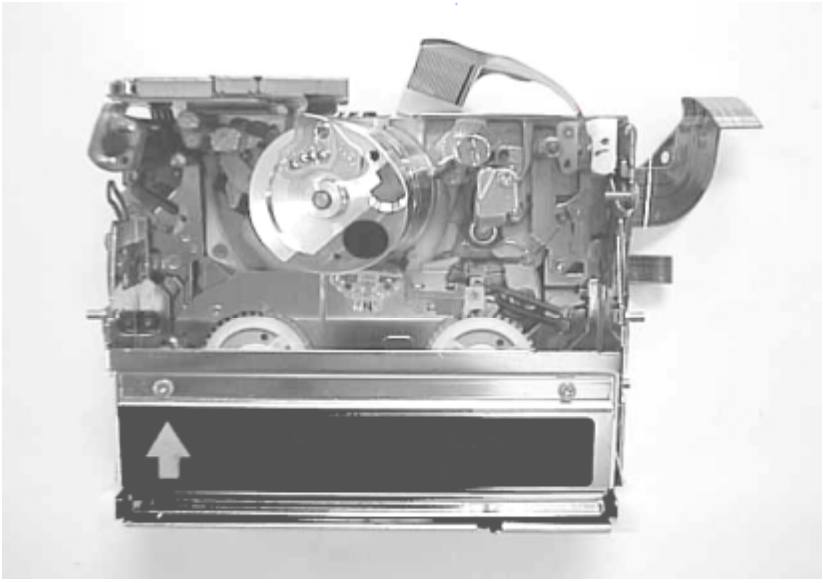
Digital Video Camera/Recorder

Panasonic Mini DV

- Q-MECHANISM

(Including Q1, Q2&Q3)

Disassembly/Assembly Procedures
Adjustment Procedures



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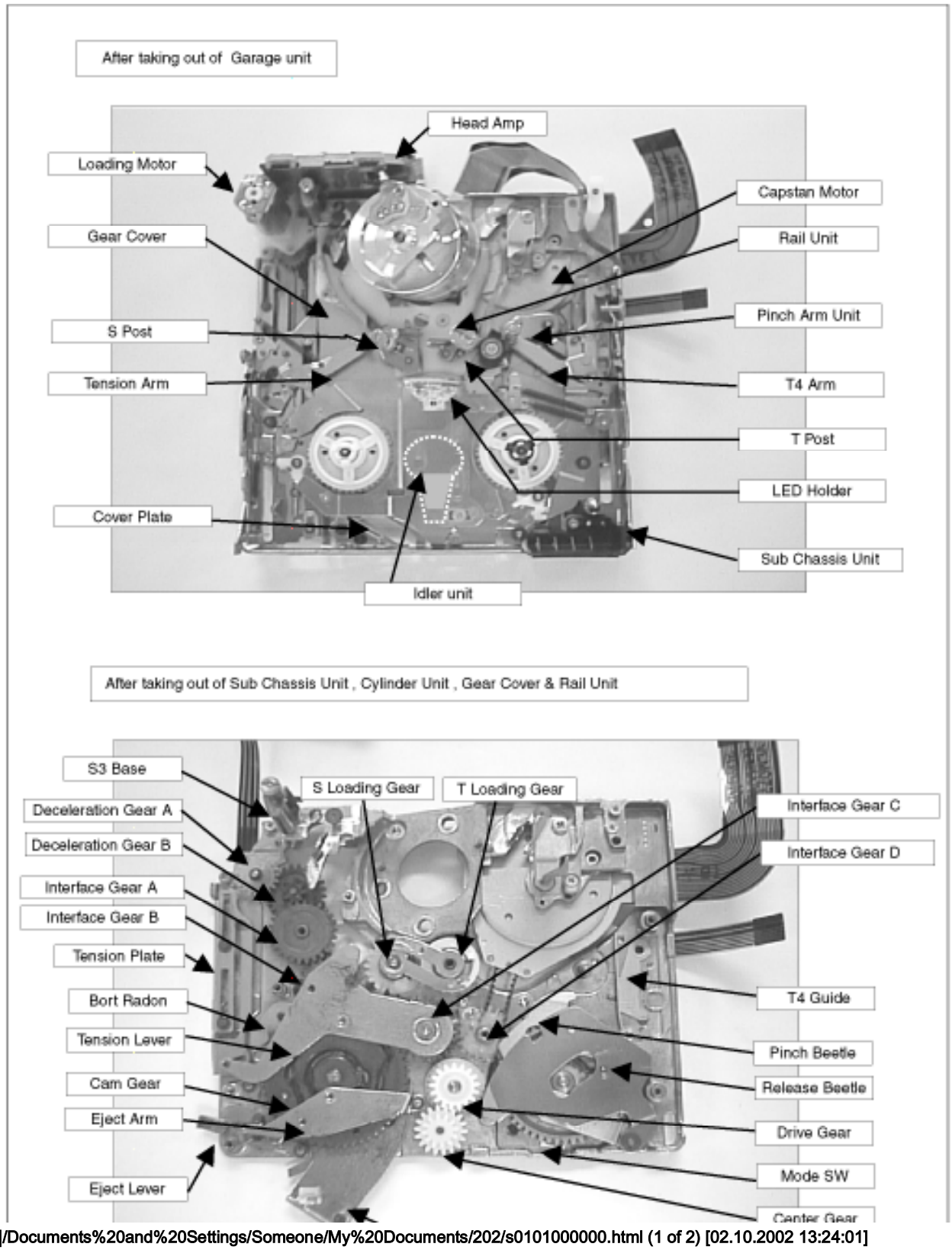
Panasonic

1.1 UPPER SIDE

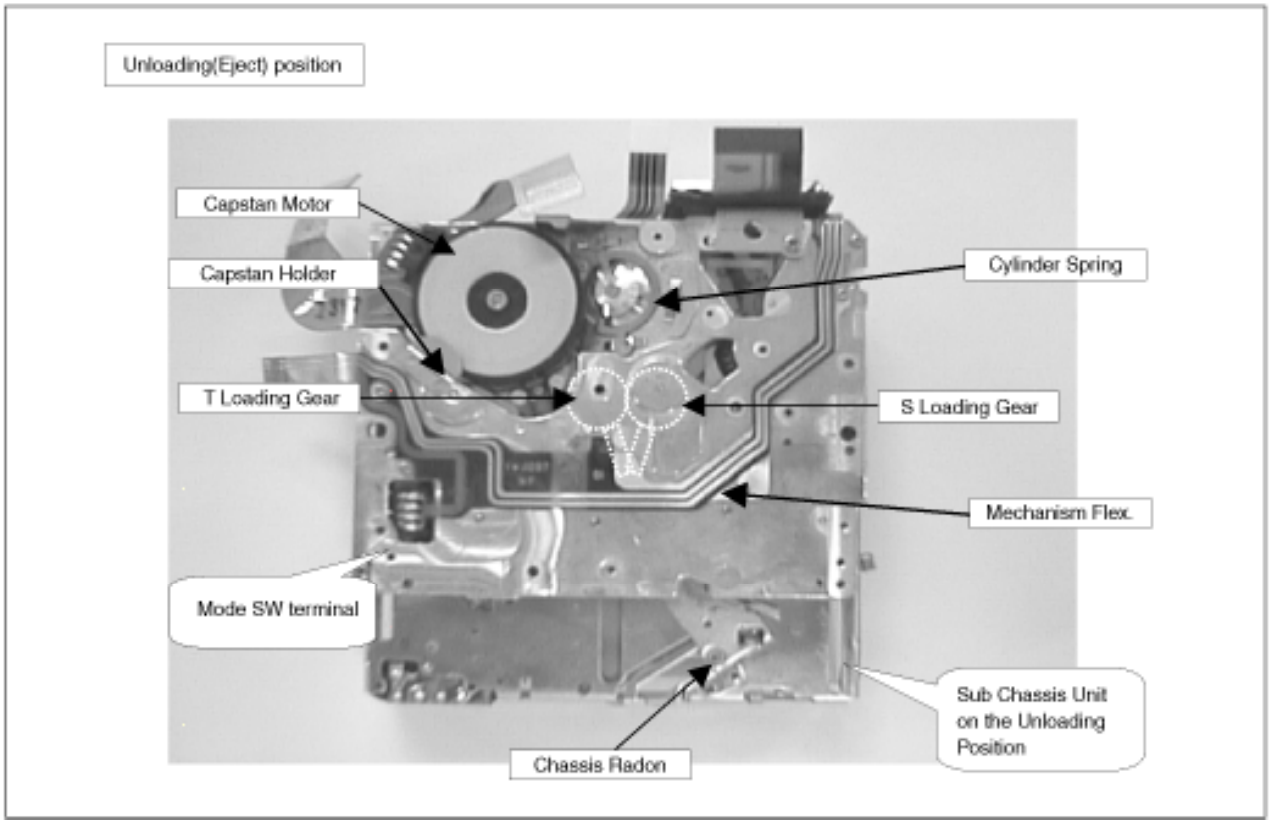
TOP PREVIOUS NEXT



TOP PREVIOUS NEXT

1.2 BOTTOM SIDE

TOP PREVIOUS NEXT



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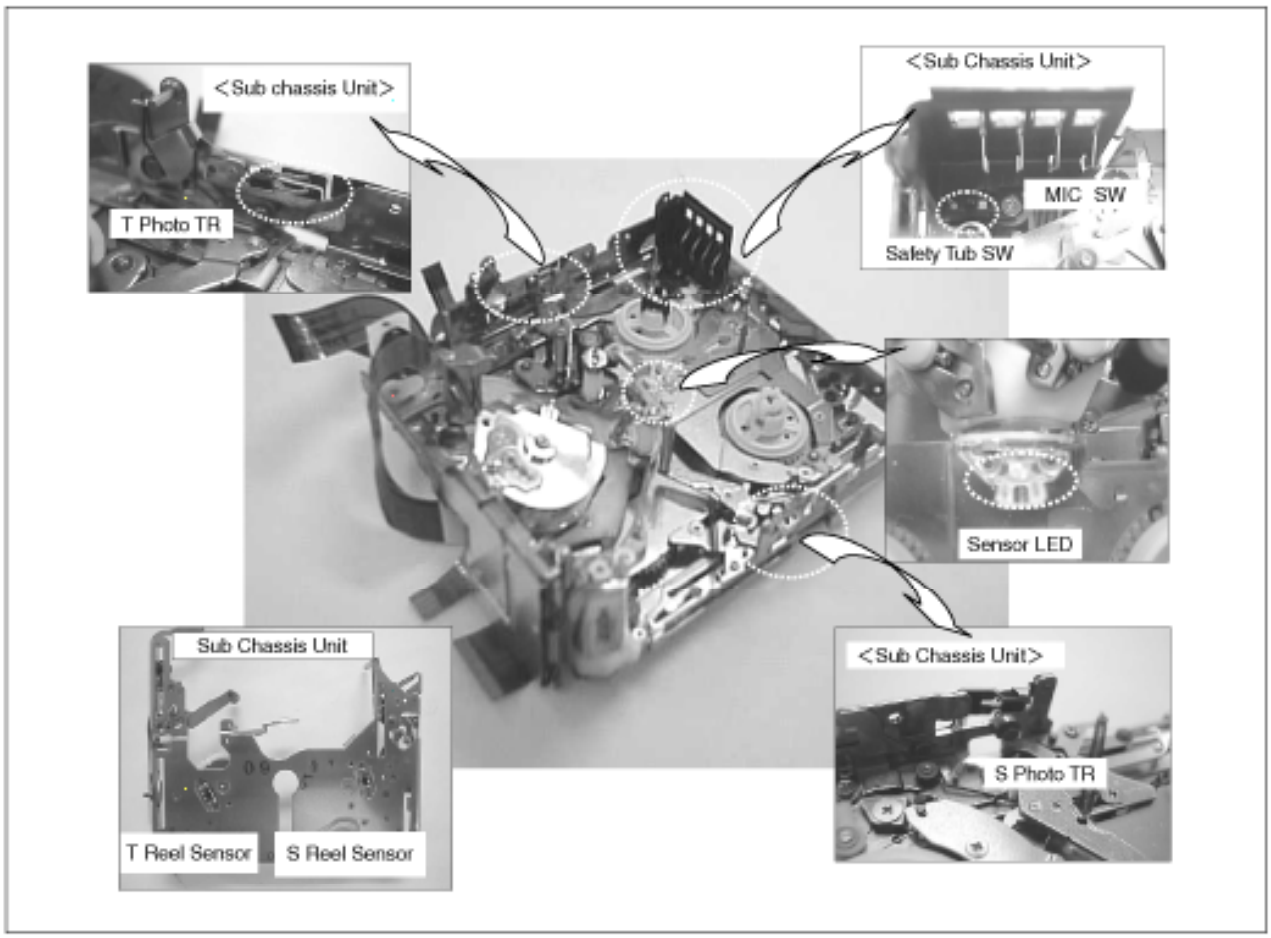
1.3 SENSOR POSITION

TOP PREVIOUS NEXT

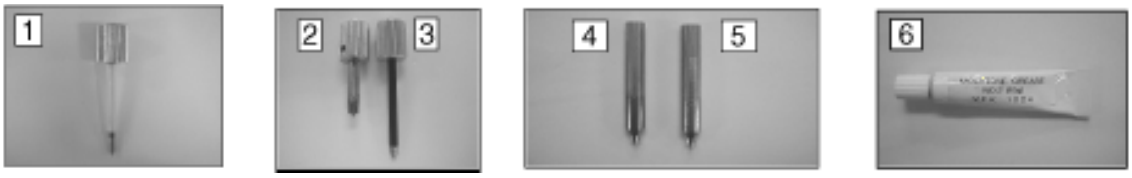


TOP PREVIOUS NEXT

2.1 FIXTURES& TOOLS FOR DISASSEMBLY& ASSEMBLY

TOP PREVIOUS NEXT

No.	Parts number	Parts Name	Q´ty	New	Remarks
1	VFK1390	Precision Driver	1	•	
2	VFK1444	Gear Driver	1	•	
3	VFK1444Q2	Gear Driver for Q2 & Q3mecha.	1	•	
4	VFK1650	Cut Washer Jig(0.86)	1	•	
5	VFK1649	Cut Washer Jig(0.65)	1	•	
6	VFK1024	Molytone Grease	1	•	

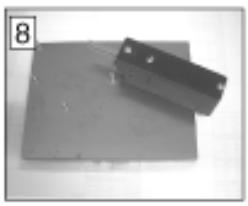


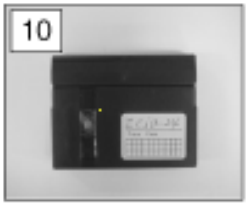
TOP PREVIOUS NEXT

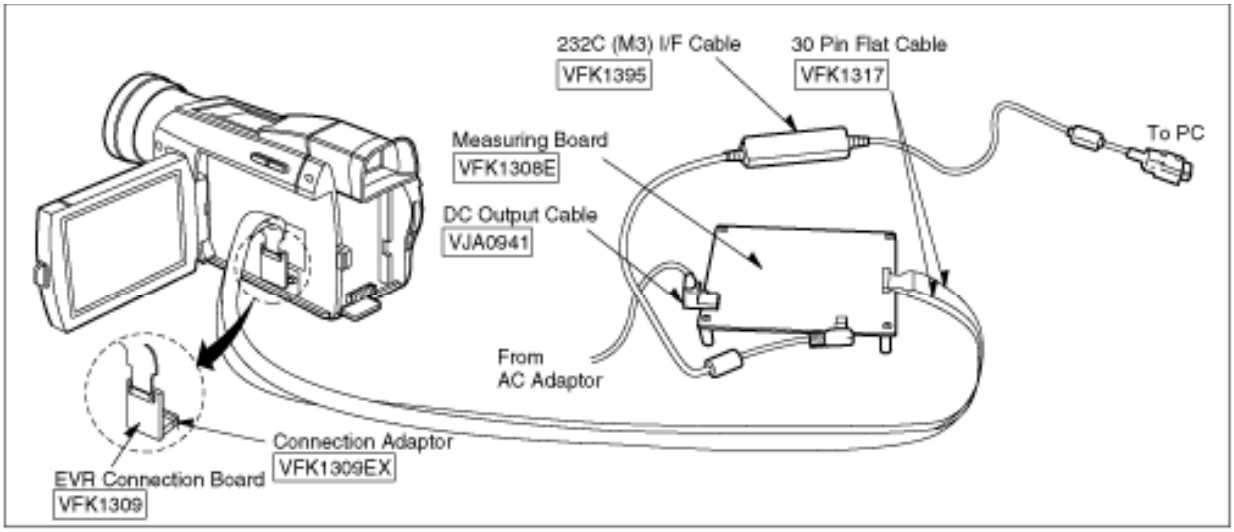
2.2 FIXTURES&TOOLS FOR MECHANICAL ADJUSTMENT

TOP PREVIOUS NEXT

No.	Parts number	Parts Name	Q´ty	New	Remarks
7	VFK1278	Post Adjustment Driver	1	•	
8	VFK1638	Capstan Tilt Adj. Jig	1	•	
9	VFK1641	Envelope Detecor Board	1	•	
10	VFM3110EDS(PAL)	DV Alignment Tape	1	--	or VFM3010EDS(NTSC)
11	VFK1395	232C(M3) I/F Cable	1	--	"TATSUJIN" system
12	VFK1308E	Measuring Board	1	--	"TATSUJIN" system
13	VFK1309	EVR Connecor Board	1	--	"TATSUJIN" system
14	VFK1309EX	Connection Adaptor		--	"TATSUJIN" system
15	VFK1317	30pin Flat Cable	2	--	or VFK1517(New - 300mm) "TATSUJIN" system
16	VJA0941	DC Output Cable	1	--	"TATSUJIN" system







2.3 MAINTENANCE FOR CAPSTAN TILT ADJUSTMENT JIG.

TOP PREVIOUS NEXT

1. Keep applying oil for preventive oxidation on base block.

   Glove should be used when you apply oil.

2. Do not apply pressure to this jig.

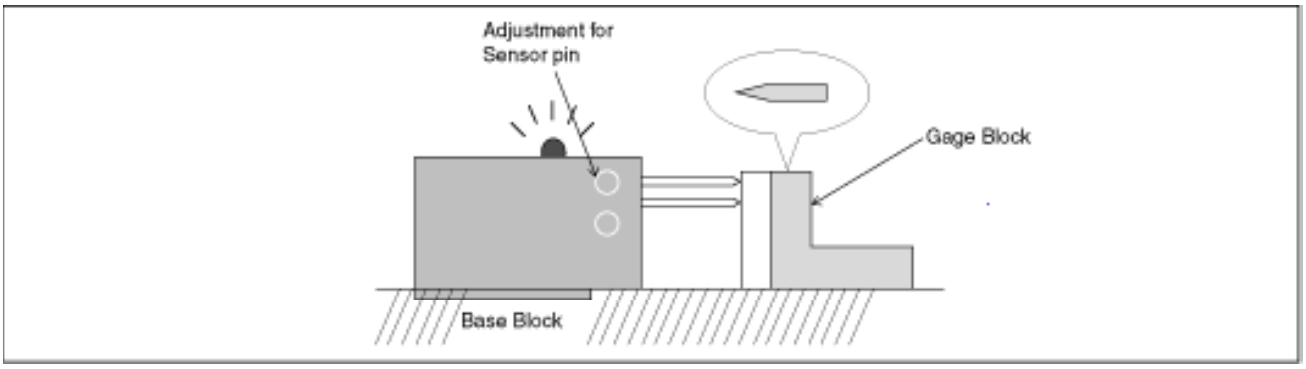
3. If Brightness of LED become weak, Battery (SUM4 X 2) in the top of box should be changed.

4. Inspect sensor pin regularly as following.

   A. Put Gage Block to sensor pin.

   B. Confirm LED is lit.

      If not, adjust sensor pin by rotating a screw.



TOP PREVIOUS NEXT

3.1 PREPARATION FOR DISASSEMBLY

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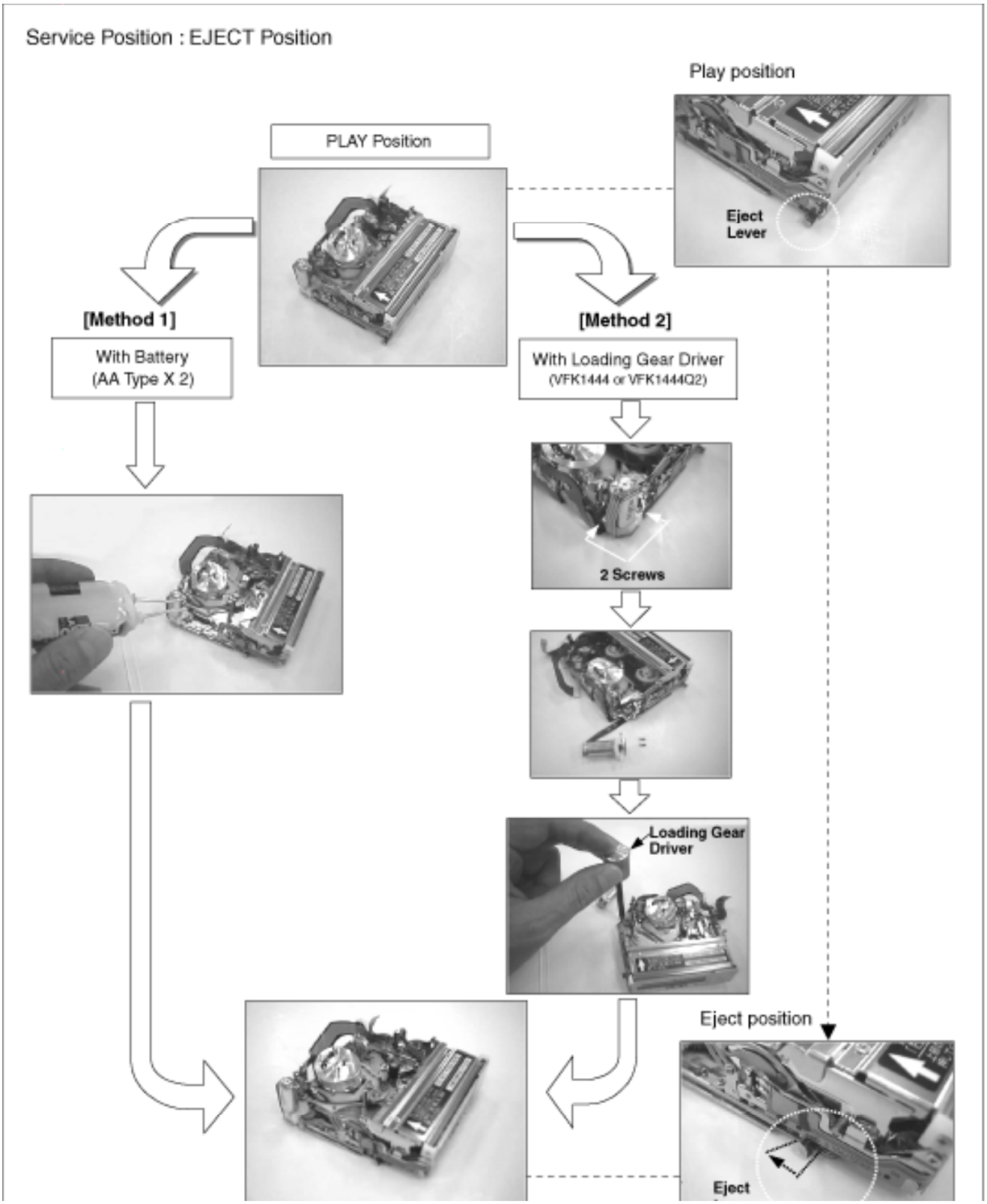
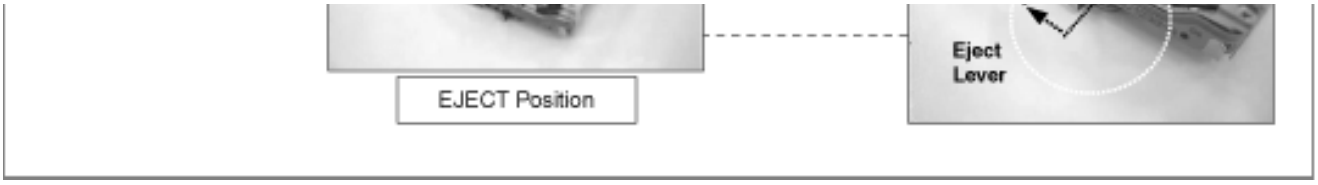




TOP PREVIOUS NEXT

3.2 DISASSEMBLY PROCEDURE

TOP PREVIOUS NEXT

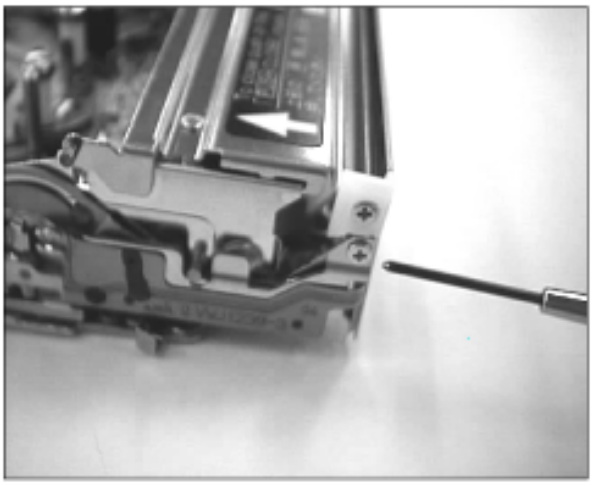
No.	Item	Fig.	Procedure
1	Cassette Up Unit.	Fig. D1-1	1) Remove 3 screws. (Q1 &2 have 4 screws)
		Fig. D1-2	2) Take coupling portion off from both S &T sides.
*2	H Amp Unit./(Only Q1 & Q2)	Fig. D2-1	1) Remove a screw from Shield case.
		Fig. D2-2	2) Take Cylinder Flex. From connector.
		Fig. D2-3	3) Remove a screw from H Amp Angle.
3	Cylinder Unit & RT Flex. Flame.	Fig. D3-1	1) Remove a screw from RT Flex. Flame.
		Fig. D3-2	2) Remove 3 screws and then take Cylinder Spring out.
		Fig. D3-3	3) Remove a screw and take RT Flex. Flame out.
4	LED Holder, Cover plate & Idler U.	Fig. D4-1	1) Pull up and remove LED Holder.
		Fig. D4-2	2) Move LED Flat Cable out of position and unhook 2 springs.
		Fig. D4-3	3) Remove 5 screws and remove Cover Plate & Idler U.
5	Sub Chassis Unit	Fig. D5-1	1) Remove 4 screws.
		Fig. D5-2	2) Remove a screw and unhook a spring from Pinch Arm.
6	Pinch Arm & Center Gear	Fig. D6-1	1) Remove Cut Washer and take Pinch Arm out. 2) Take Center Gear out.
		Fig. D6-2	3) Take Center Gear Spacer out.
7	Rail Unit	Fig. D7-1	1) Make half loading until / Connection Arm comes out.
		Fig. D7-2	2) Disconnect Connection Arms. a) Hold Loading Gear side. b) Disconnect connection arms.
		Fig. D7-3	3) Remove 4 screws.
8	T-Loading Gear & S-Loading Gear	Fig. D8	1) Take T-Loading Gear out. 2) Remove Cut Washer on S-Loading Gear and take S-Loading Gear out. * Removed Cut Washer can not be used again.
9	Gear Cover	Fig. D9	1) Remove a screw and slide Gear Cover to take out.
10	Pinch Beetle & Release Beetle	Fig. D10	1) Remove a washer and take Pinch Beetle and Release Beetle out together.
11	Tension Lever & Eject Arm.	Fig. D11	1) Remove a screw and take Tension Lever out. 2) Remove a washer and take Eject Arm out.
12	Interface Gears	Fig. D12	1) Remove 4 Gears.
13	Cam Gear	Fig. D13	1) Remove Cam Gear.

14	Chassis Radon	Fig. D14	1) Remove a washer.
15	Boat Radon	Fig. D15	1) Remove Boat radon.
16	Drive Gear	Fig. D16	1) Remove Drive Gear and a White Waher underneath.
17	Capstan Holder & Capstan Motor	Fig. D17-1	1) Remove 2 screws and take Capstan Holder out. * It is not necessary to remove 2 screws for New Capstan Holder. Because it shapes screw.
		Fig. D17-2	2) Remove 3 screws and take Capstan Motor out downword.
18	Loading Motor unit & Mechanism Interface Flex.	Fig. D18-1	1) Remove 2 screws and take Loading Motor Unit out.
		Fig. D18-2	2) Remove 4 screws and dissolder at Mode Sw.
*19	Mode Switch , Deceleration Gears & Tension Plate.	Fig. D19	1) Take Mode Sw out. 2) Remove a washer and take Deceleration Gear (A) out. 3) Take Deceleration Gear (B) out. 4) Remove 2 washers and take Tension Plate.
*20	T4 Guide , Eject Lever , Pulley Cover & Pulley.	Fig. D20-1	1) Remove a screw and take T4 Guide out.
		Fig. D20-2	2) Remove a washer and take Eject Lever out.
		Fig. D20-3	3) Remove 2 screw and take Pulley Cover out. 4) Take Pulley out.
*21	S3 Base U.	Fig. D21	1) Remove a screw for S3 adjustment and take S3 Base U.

* 1) Procedure 2 for H.Amp Unit is applied only Q1 & Q2 / mechanism. 2) Procedure 19 - 21 can be changed in order.

Fig. D1-1

1/3 (Left)
* Lower one



2/3 (Front)
* Q1 & Q2 : 2screws

3/3 (Right)
* Lower one

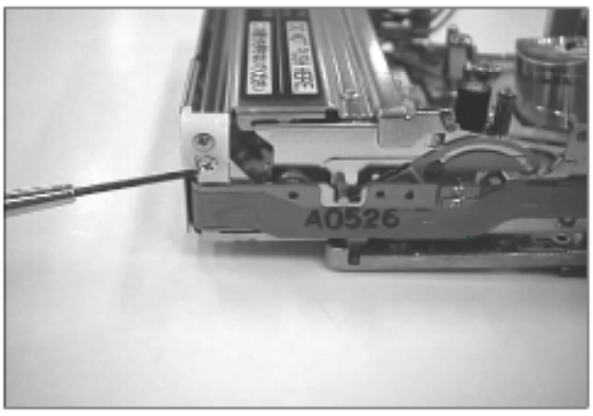


Fig. D1-2

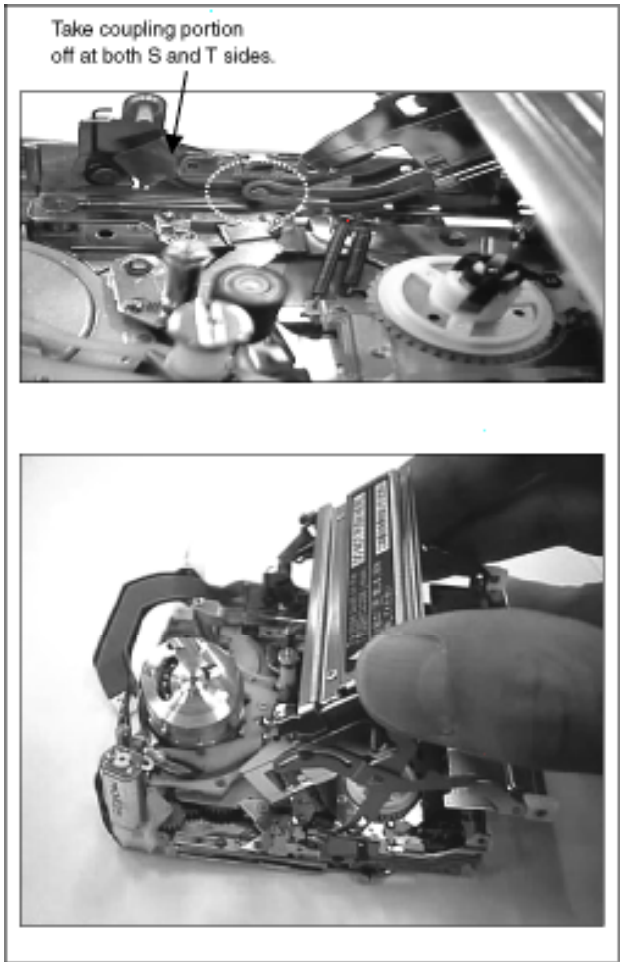


Fig. D2-1

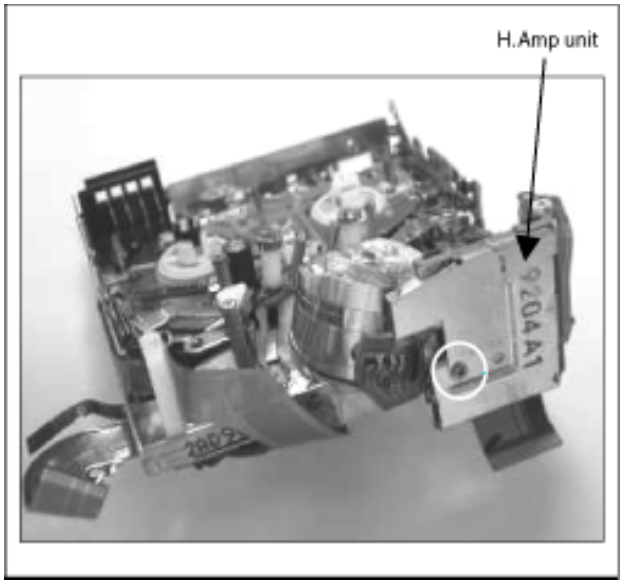


Fig. D2-2

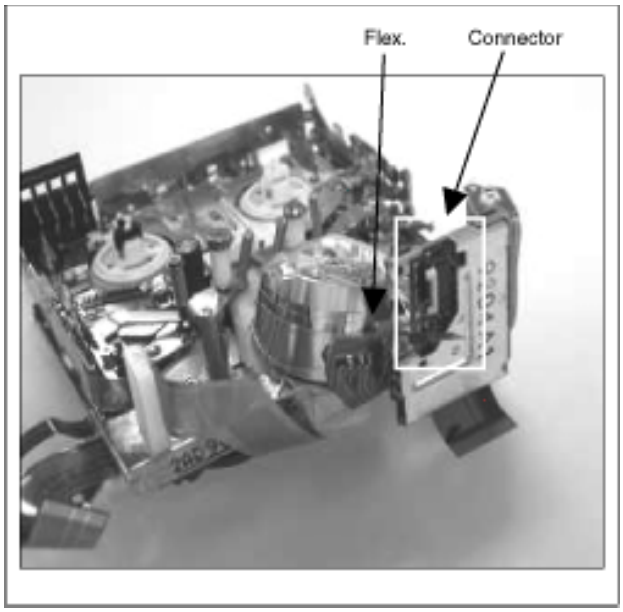


Fig. D2-3

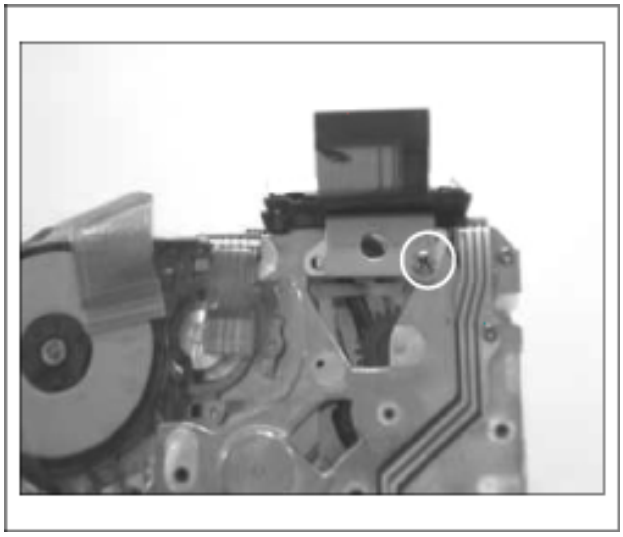


Fig. D3-1

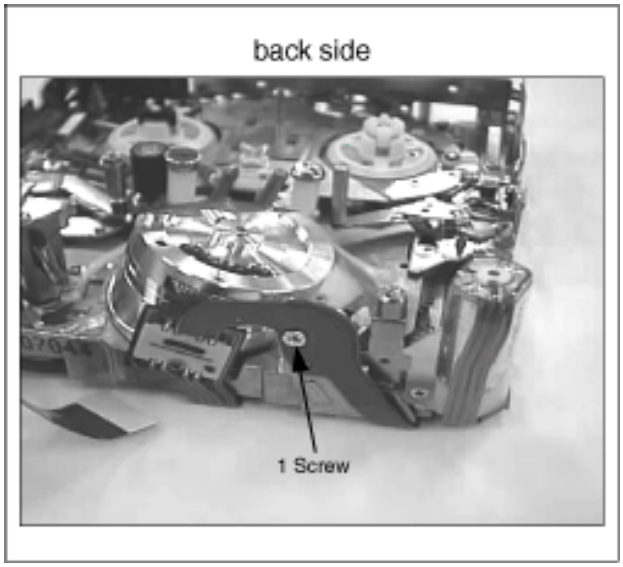


Fig. D3-2

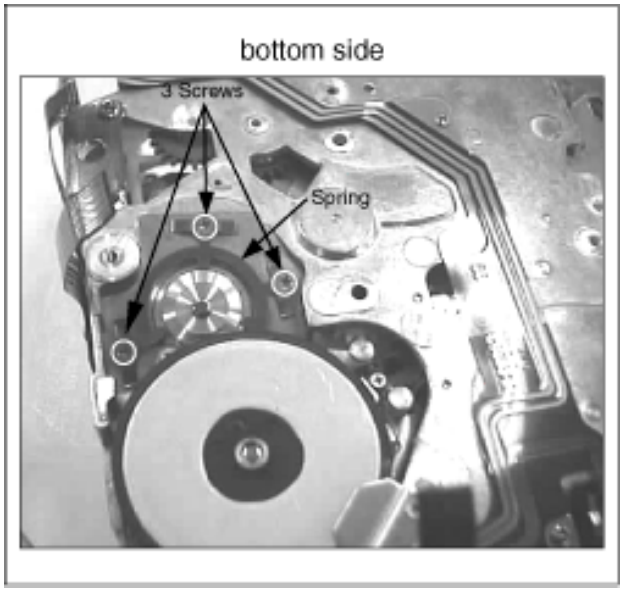


Fig. D3-3

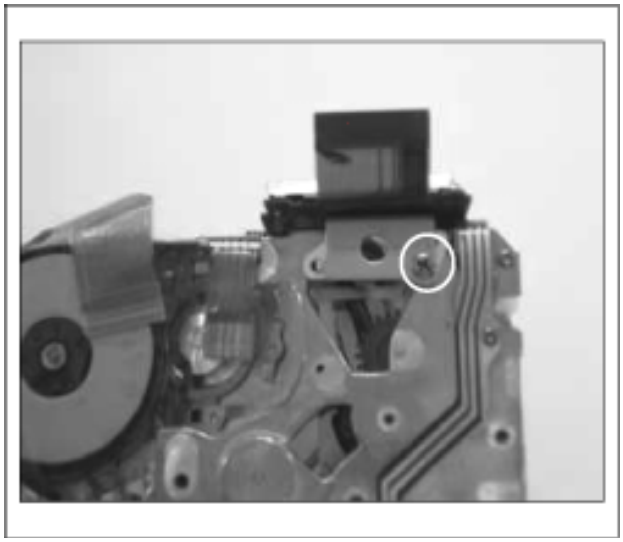


Fig. D4-1

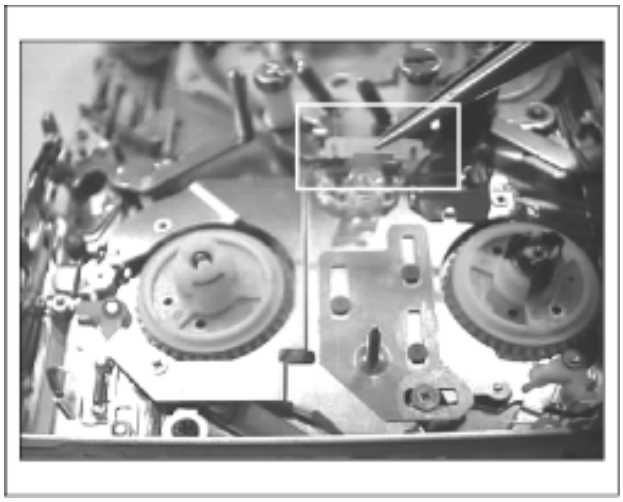


Fig. D4-2

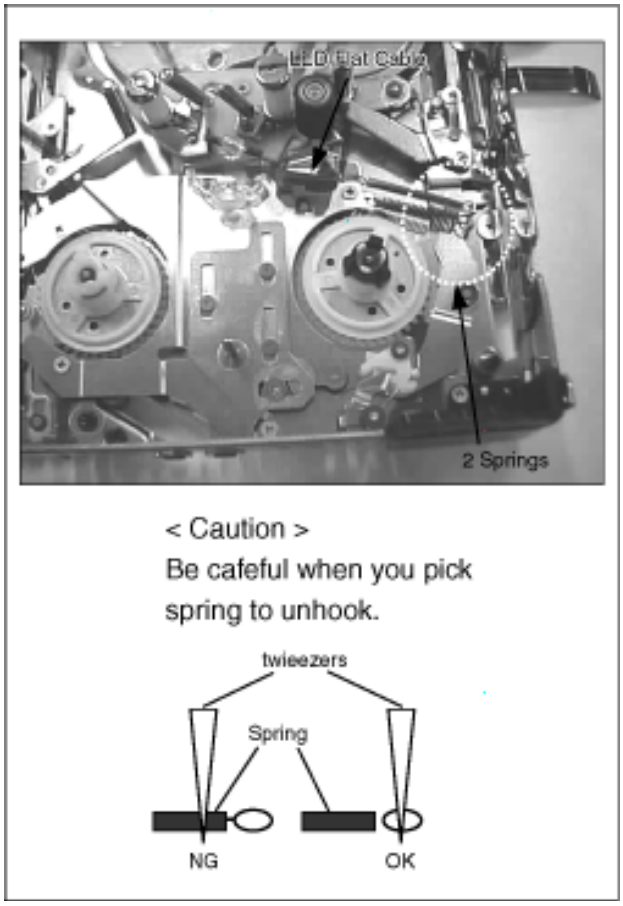
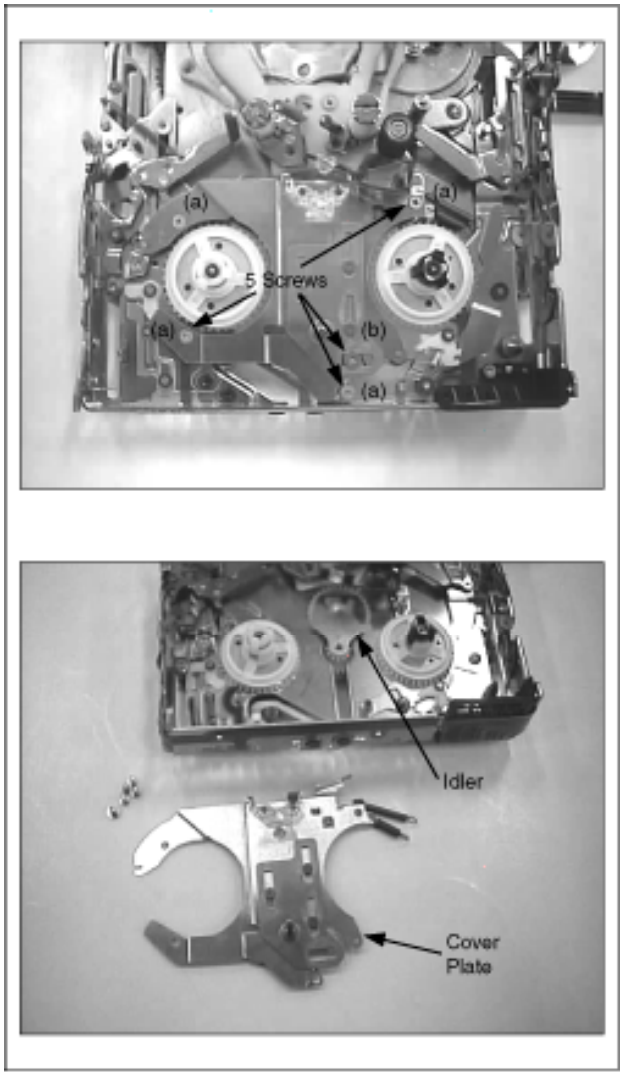

LED Flat Cable
2 Springs
< Caution >
Be cafeful when you pick
spring to unhook.
twieezers
Spring
NG
OK

Fig. D4-3



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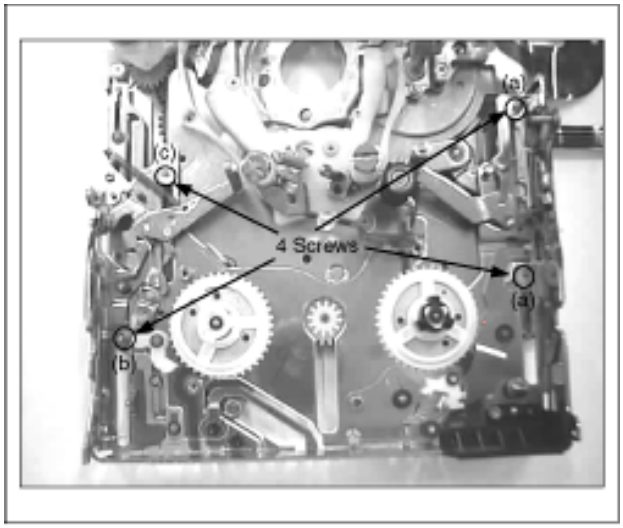


Fig. D5-2

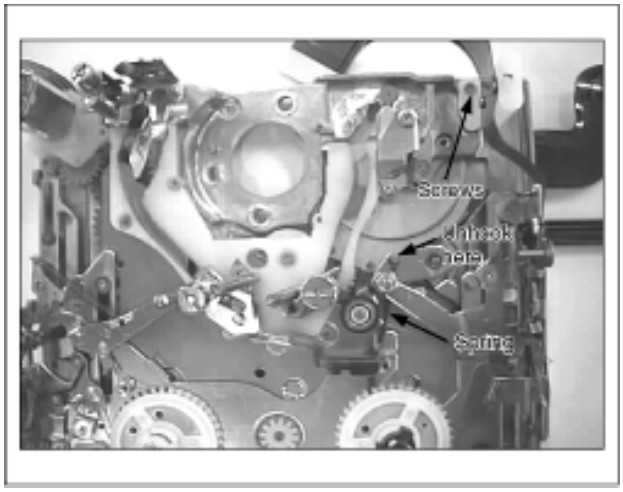


Fig. D6-1

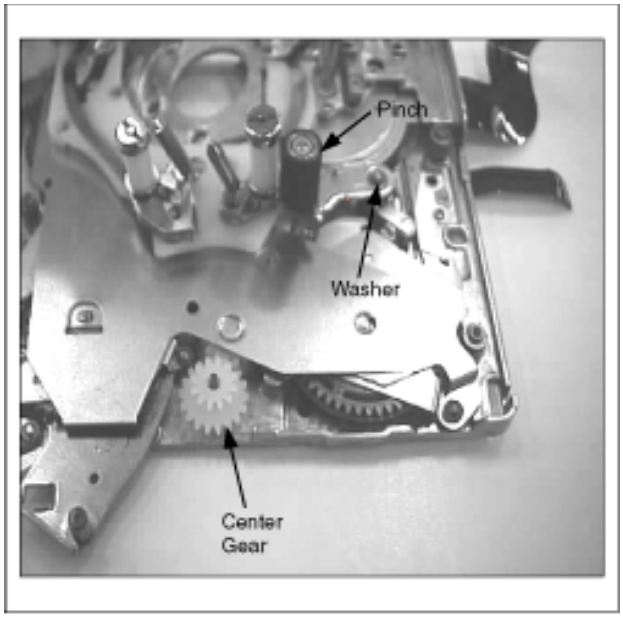


Fig. D6-2

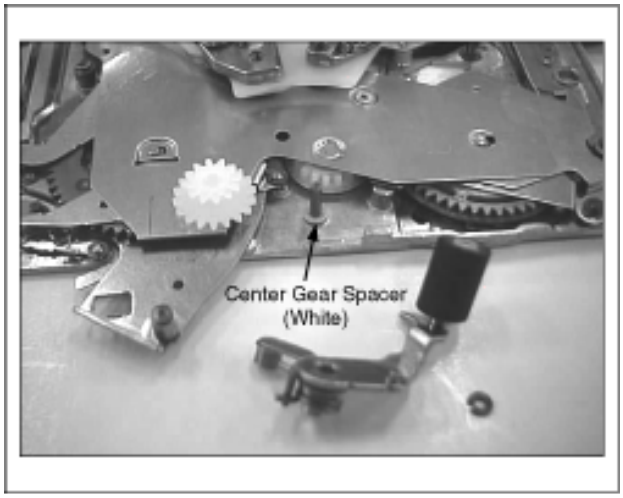


Fig. D7-1

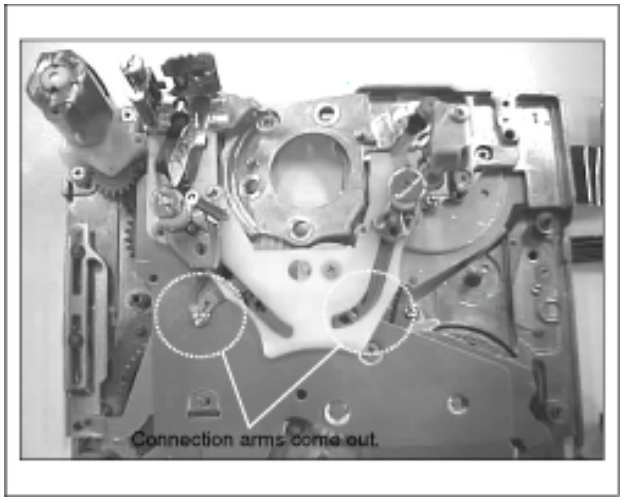


Fig. D7-2

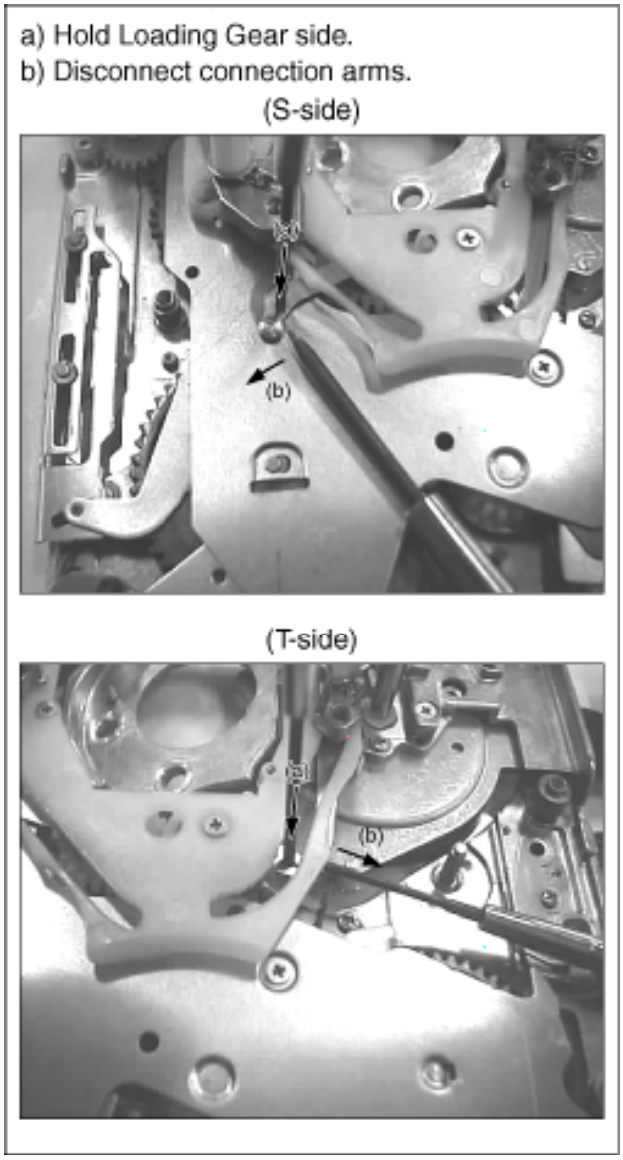

a) Hold Loading Gear side.
b) Disconnect connection arms.
(S-side)
(a)
(b)
(T-side)
(a)
(b)

Fig. D7-3

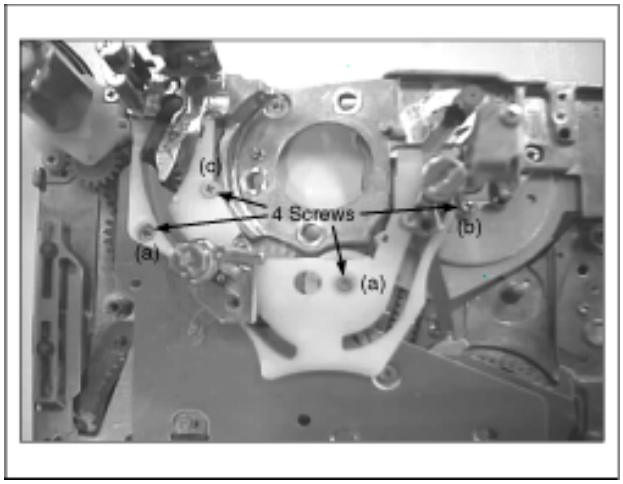

(c)
4 Screws
(b)
(a)
(a)

Fig. D8

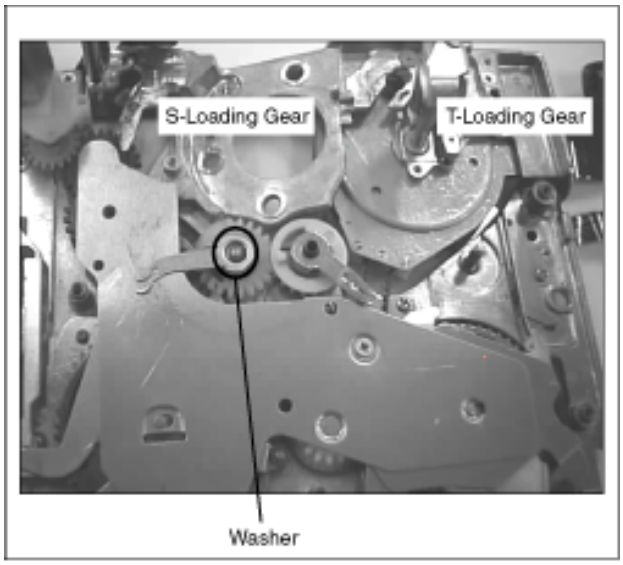


Fig. D9

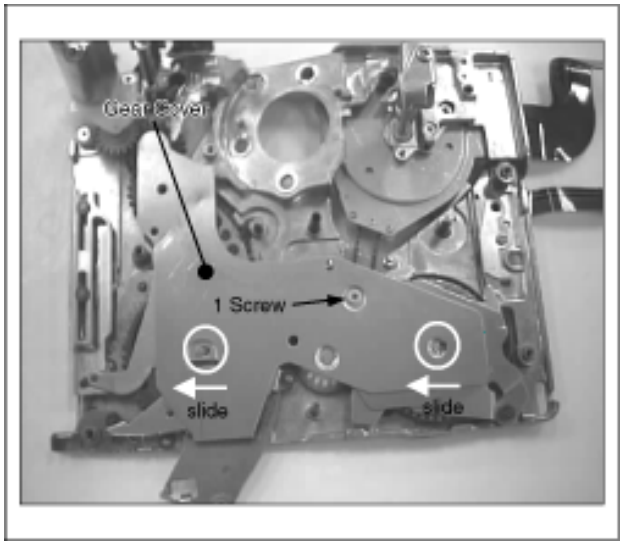


Fig. D10

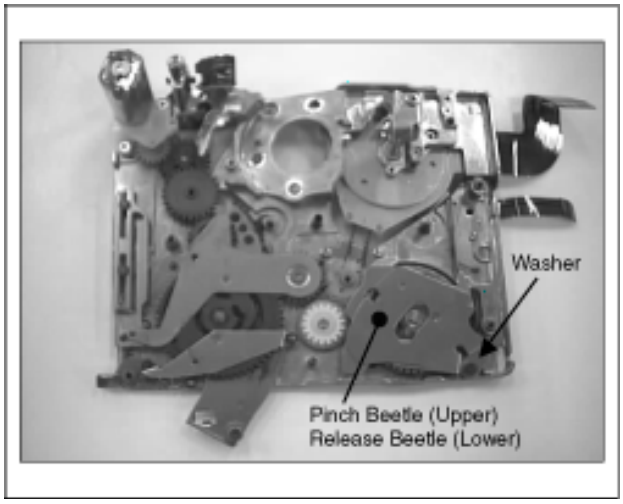


Fig. D11

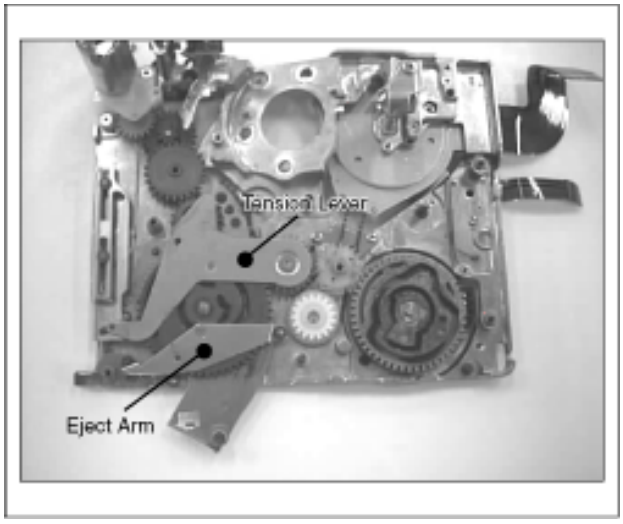


Fig. D12

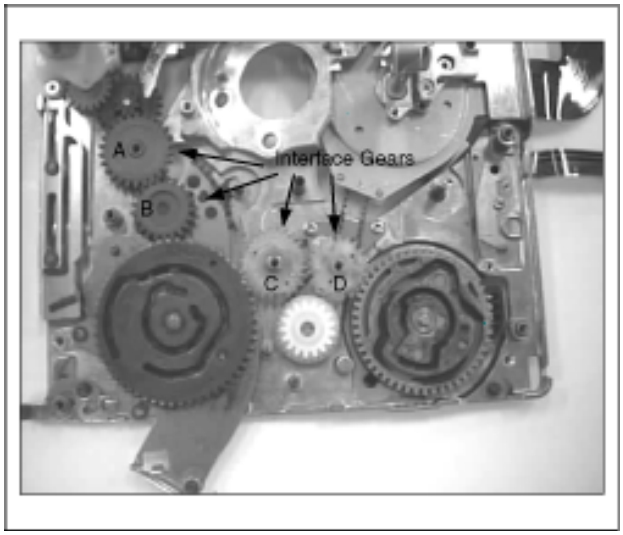


Fig. D13

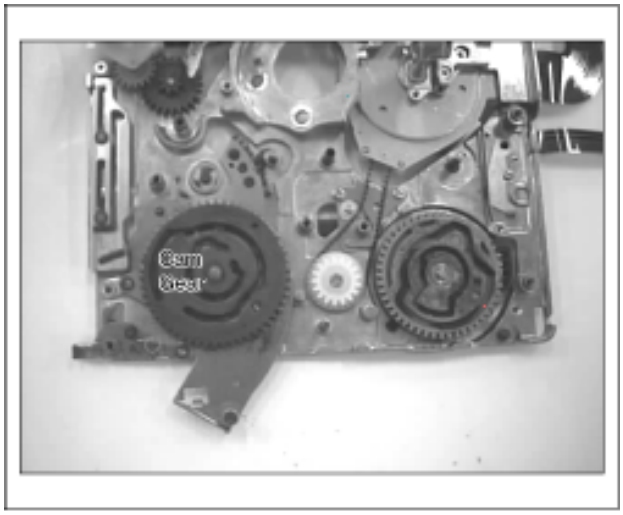


Fig. D14

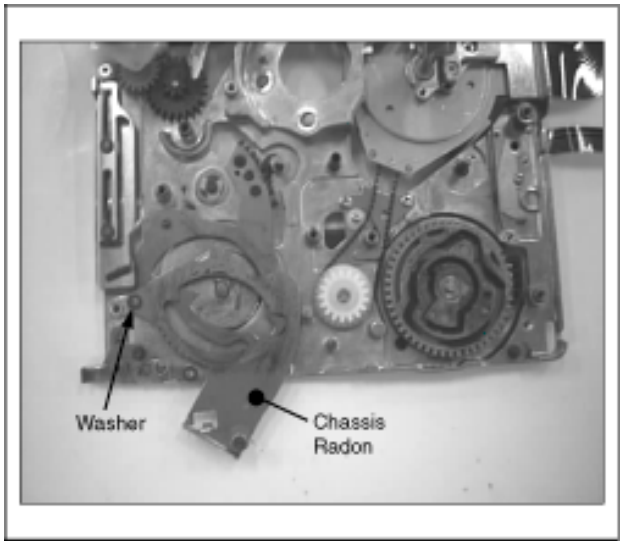


Fig. D15

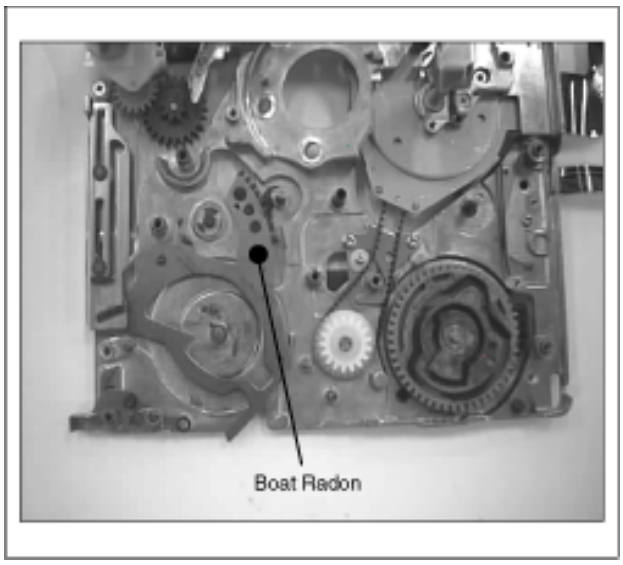


Fig. D16

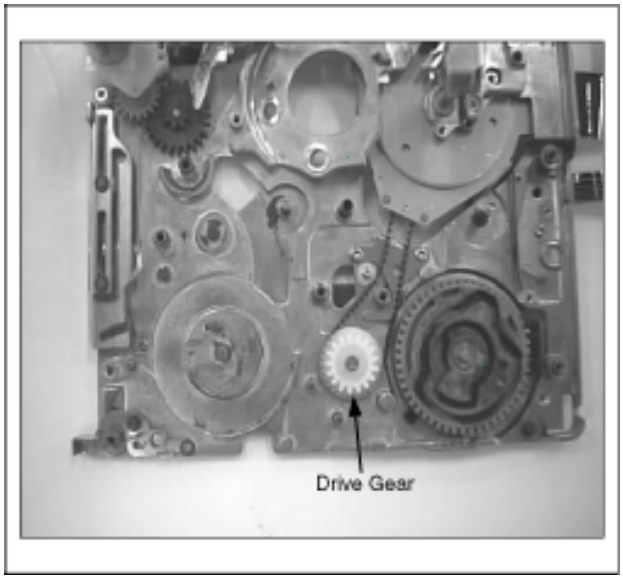


Fig. D17-1

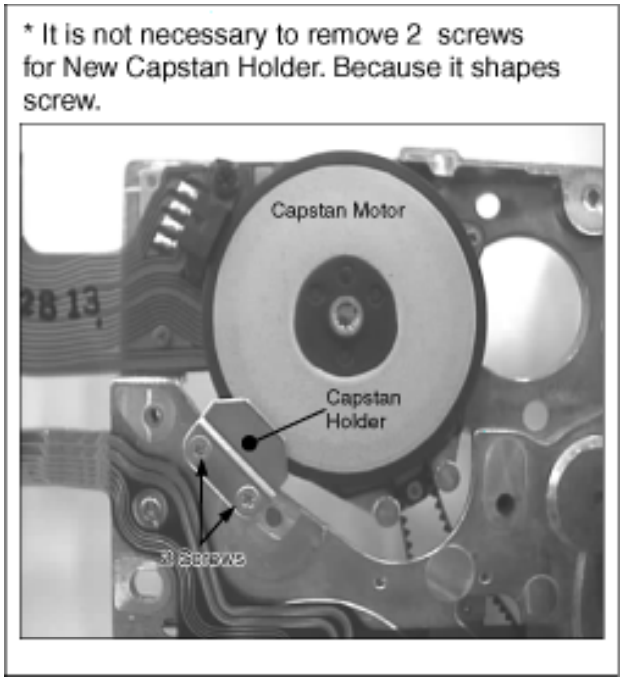


Fig. D17-2

Fig. D18-1

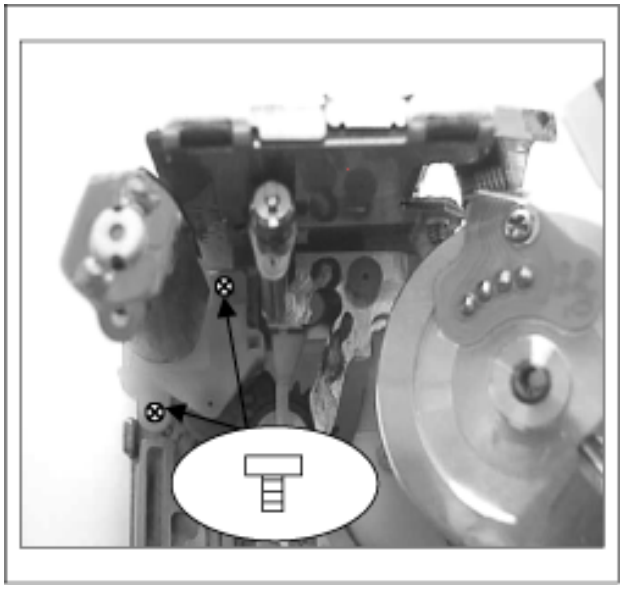


Fig. D18-2

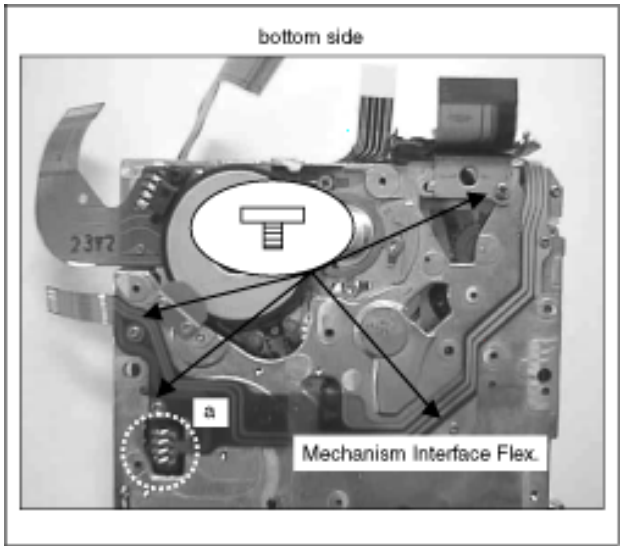


Fig. D19

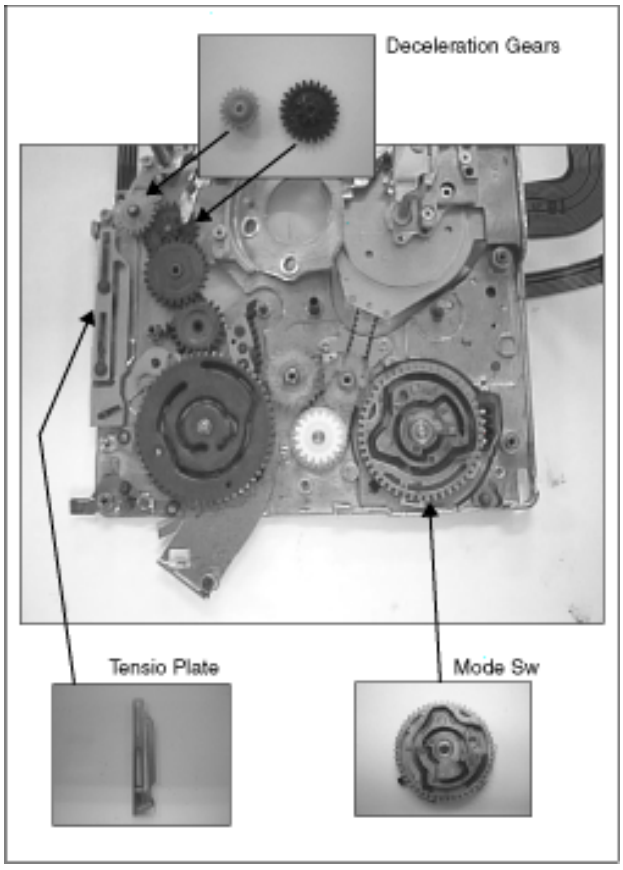


Fig. D20-1

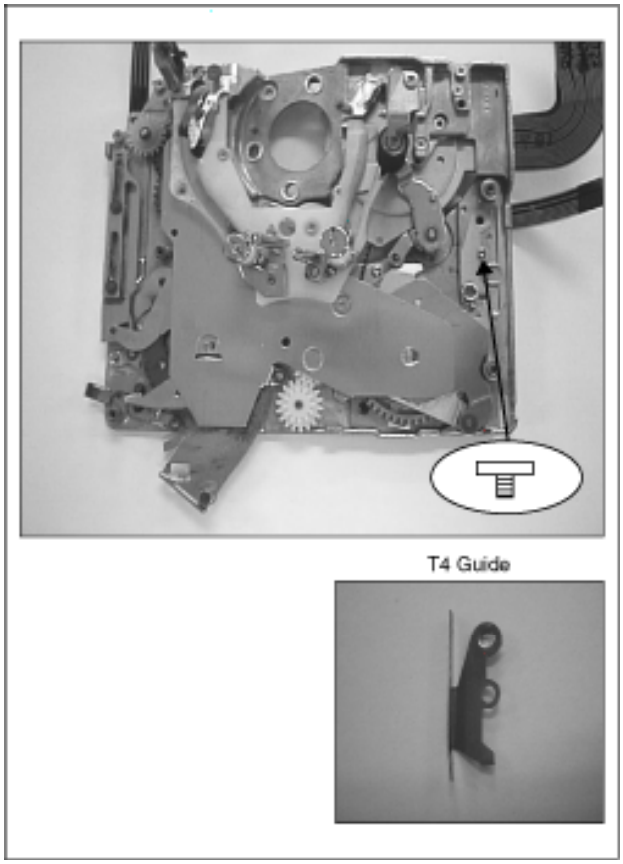


Fig. D20-2

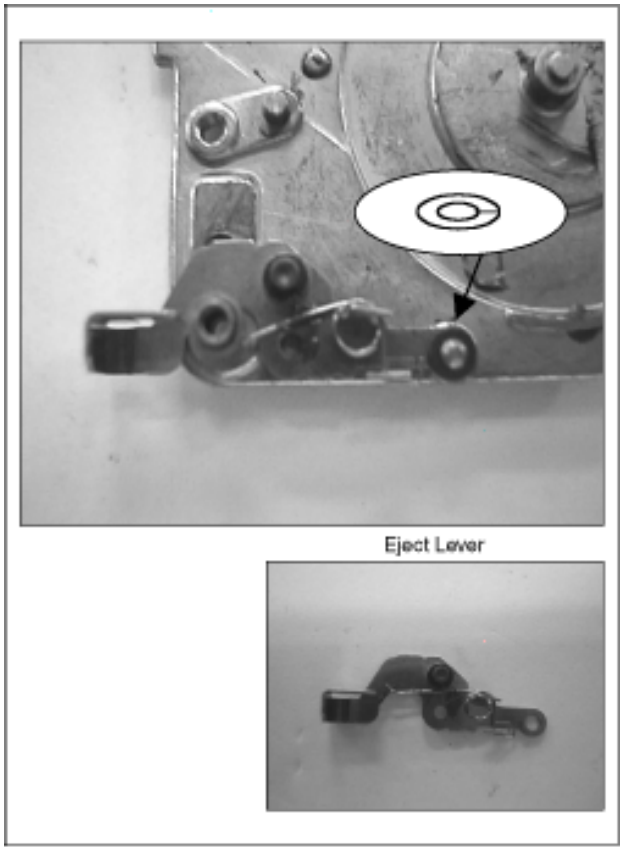


Fig. D20-3

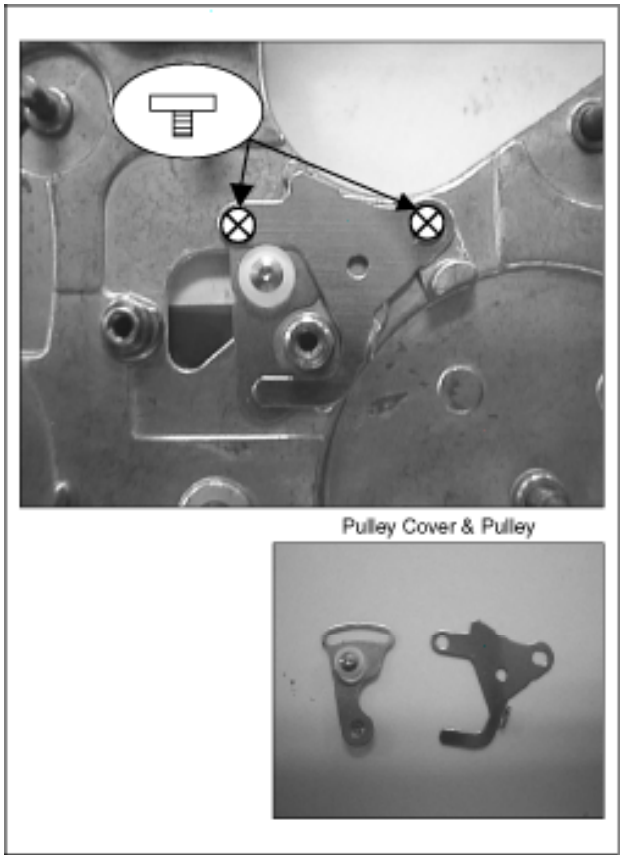
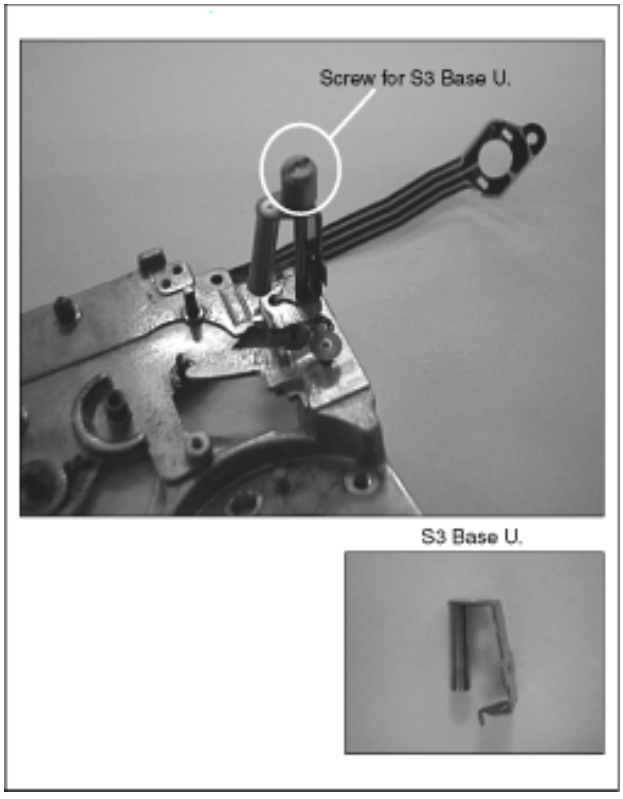


Fig. D21



4.1 ASSEMBLY PROCEDURE

TOP PREVIOUS NEXT

* 1) Procedure 20 for H.Amp Unit is applied only Q1 & Q2 mechanism.

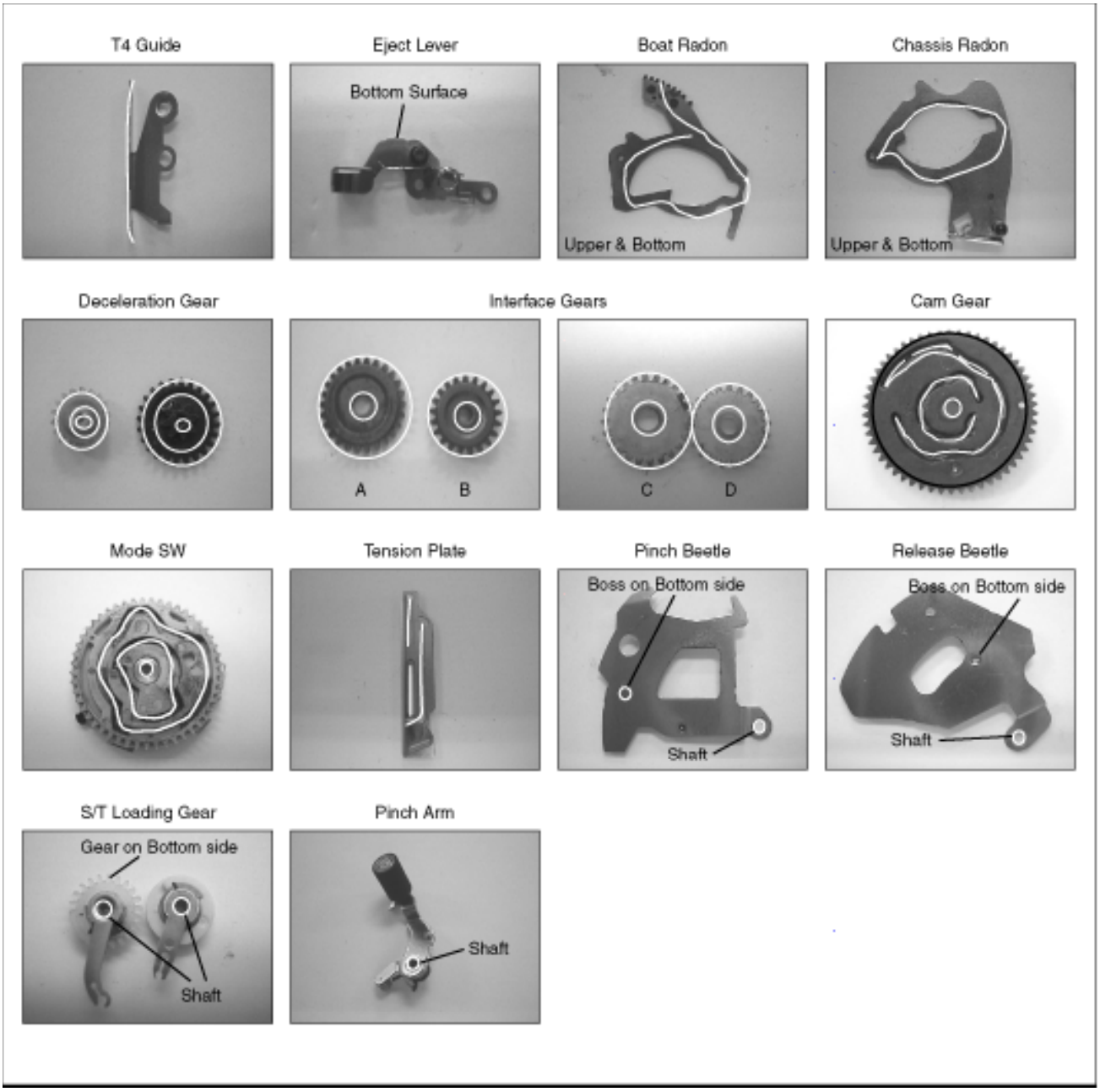
2) Procedure 1 - 3 can be changed in order.

No.	Item	Fig.	Grease	Procedure
*1	S3 Base U.	Fig. A1	--	1) Put S3 Base U on and tighten a screw.
*2	T4 Guide , Eject Lever, Pulley Cover & Pulley.	Fig. A2-1	•	1) Put hole of T4 Guide to hole of chassis and tighten a screw.
		Fig. A2-2	•	2) Put Eject Lever on and a washer.
		Fig. A2-3	--	3) Put boss of Pulley to hole of chassis on. Hole of chassis under pulley should be visible through slit of Pulley.
		Fig. A2-4	--	4) Put Pulley Cover on Pulley and tighten 2 screws.
*3	Mode Switch , Deceleration Gears & Tension Plate.	Fig. A3	•	1) Put Mode Sw on.
			•	2) Put Deceleration Gear (B) on
			•	3) Put Deceleration Gear (A) on and a washer.
			•	4) Put Tension Plate on and 2 washers.
4	Loading Motor unit & Mechanism Interface Flex.	Fig. A4	--	1) Put Loading Motor Unit on and tighten 2 screws.
			--	2) Put Mechanism Interface Flex on and tighten 4 screws. After that, solder at terminal of Mode Sw.
5	Capstan Holder & Capstan Motor	Fig. A5-1	--	1) Put Capstan Motor on and tighten 3 screws. Timing Belt should be between Pulley and boss.
		Fig. A5-2	--	2) Put Capstan Holder on and tighten 2 screws.
6	Drive Gear	Fig. A6	--	1) Put a washer to shaft and install Drive Gear. Timing Belt should be wound around Drive Gear. After that, confirm Timing Belt and Gear are rotated together.
7	Boat Radon	Fig. A7	•	1) Put hole of Boat radon to shaft of chassis.
8	Chassis Radon	Fig. A8	•	1) Put Chassis Radon and a washer on.
9	Cam Gear	Fig. A9	•	1) Put Cam Gear on. Phase Mark should be in the same line with chassis of shaft..
10	Interface Gears	Fig. A10-1	•	1) Put Interface Gear(C) & (D). Each phase mark should be in the same line.
		Fig. A10-2	•	2) Put Interface Gear(A) & (B) on.
11	Tension Lever & Eject Arm.	Fig. A11	--	1) Put boss of Tension Lever into slit of Cam Gear and Tension Plate, then tighten a screw.

				2) Put boss of Eject Arm into slit of Cam Gear. Put a washer on shaft of chassis.
12	Pinch Beetle & Release Beetle	Fig. A12	•	1) Put boss of Pinch Beetle into slit of Mode Sw.
				2) Put boss of Release Beetle into slit of Mode Sw.
				3) Put a washer on.
13	Gear Cover	Fig. A13	--	1) Keep sliding Gear Cover and put it on.
				2) Tighten a screw.
14	T-Loading Gear & S-Loading Gear	Fig. A14	•	1) Put S-Loading Gear on.
				2) Put T-Loading Gear on. Each phase mark should be in the same line.
15	Rail Unit	Fig. A15-1	--	1) Make half loading until Connection Arm comes out.
		Fig. A15-2	--	2) Connect Arm of S & T Loading Gear and Connection Arms. a) Hold Loading Gear side. b) Push Arm of S & Tloading Gear into slit of connection arms.
		Fig. A15-3	--	3) Tighten 4 screws.
16	Pinch Arm & Center Gear	Fig. A16-1	--	1) Put Center Gear Spacer on shaft of chassis.
				2) Put Center Gear on.
		Fig. A16-2	•	3) Make full loading position and put Pinch arm on, then put a washer on.
17	Sub Chassis Unit	Fig. A17-1	--	1) Make unloading position until moving Release Beetle Confirm spring is exist.
		Fig. A17-2		2) Put Sub Chassis Unit on as pre-installation.
		Fig. A17-3		3) Tighten 3 screws. Make Loading position until 1 screw position appears, then tighten a screw.
		Fig. A17-4		4) Tighten a screws at Flex Holder portion and Hook spring back to Pinch Arm.
18	LED Holder, Cover plate & Idler U.	Fig. A18-1	--	1) Put Idler U into shaft of Drive Gear.
		Fig. A18-2	--	2) Put Cover Plate on and tighten 5 screws, then hook 2 springs to 2hooking portion of Sub chassis. And also put LED Flat Cable back.
		Fig. A18-3		3) Put LED Holder back.
19	Confirmation of Mechanism movement , Cylinder Unit & RT Flex. Flame.	Fig. A19-1	--	1) Confirm loading and unloading is smooth.
		Fig. A19-2	--	2) Put Cylinder Unit & Spring on and tighten 3 screws.
		FIg. A19-3	--	3) Put RT Flex. Flame on and tighten 2 screws.
*20	H Amp Unit. (Only Q1 & Q2)	Fig. A20-1	--	1) Put H Amp Unit on and tighten a screw at bottom of chassis.
		Fig. A20-2		2) Connect Cylinder Flex to connector.

		Fig. A20-3		3) Put Shield case on and tighten a screw.
21	Cassette Up Unit.	Fig. A21-1	--	1) Put both S &T sides to coupling portion on.
		Fig. A21-2		2) Tighten 3 screws. (Q1 &2 have 4 screws)

The following parts should be applied Molyton Grease (VFK1024).



How to use washer jigs.

No.	Item	Fig.	Procedure

1	Washer Jigs	Fig. W1-1	1) Each Washers.
2		Fig. W1-2	1) Put a washer on tip of Jig.
3		Fig. W1-3	1) Put Jig on shaft.
4		Fig. W1-4	1) Put a washer on shaft by pressing Jig.

Fig. W1-1

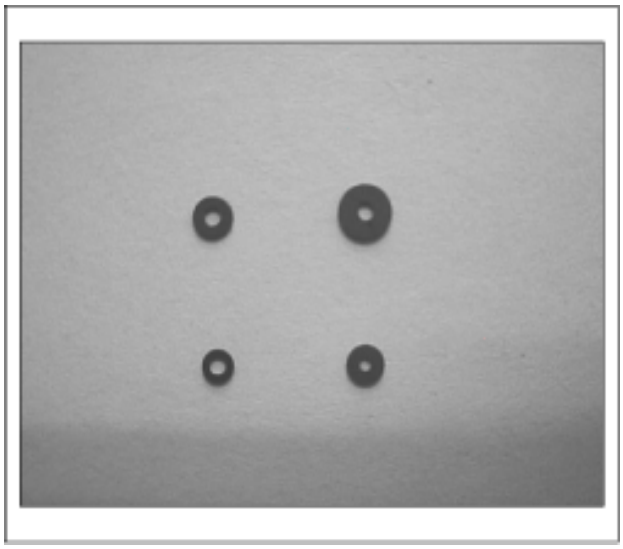


Fig. W1-2

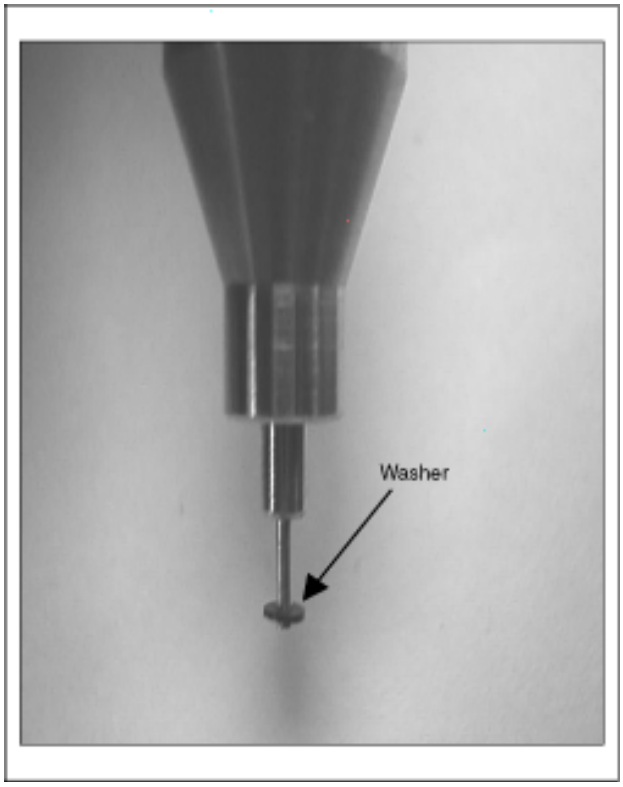


Fig. W1-3

Fig. W1-4

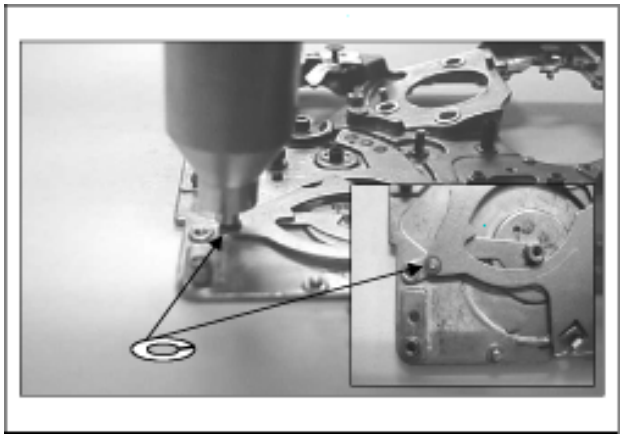


Fig. A1

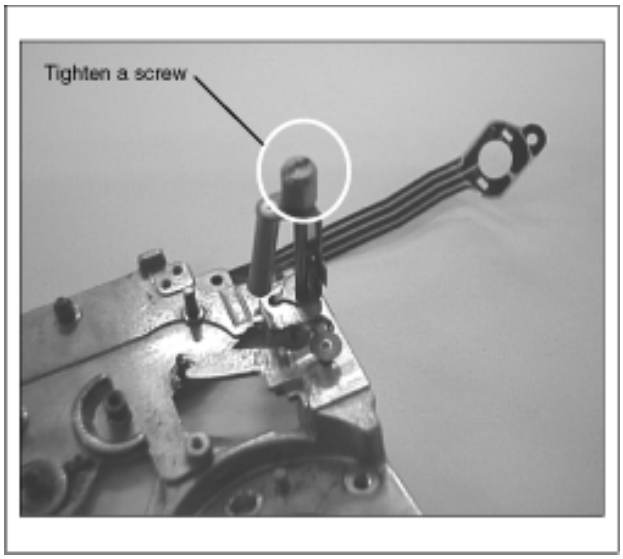


Fig. A2-1

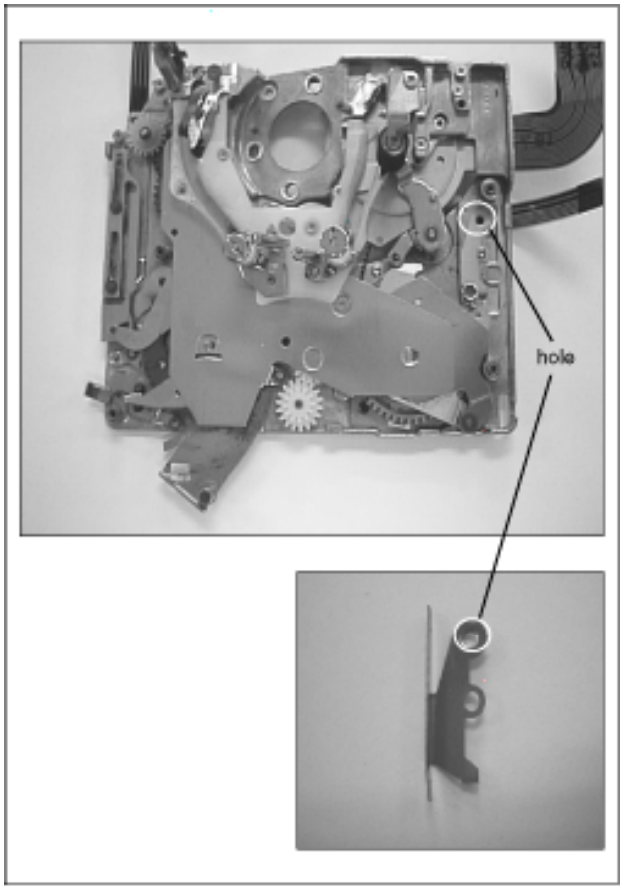


Fig. A2-2

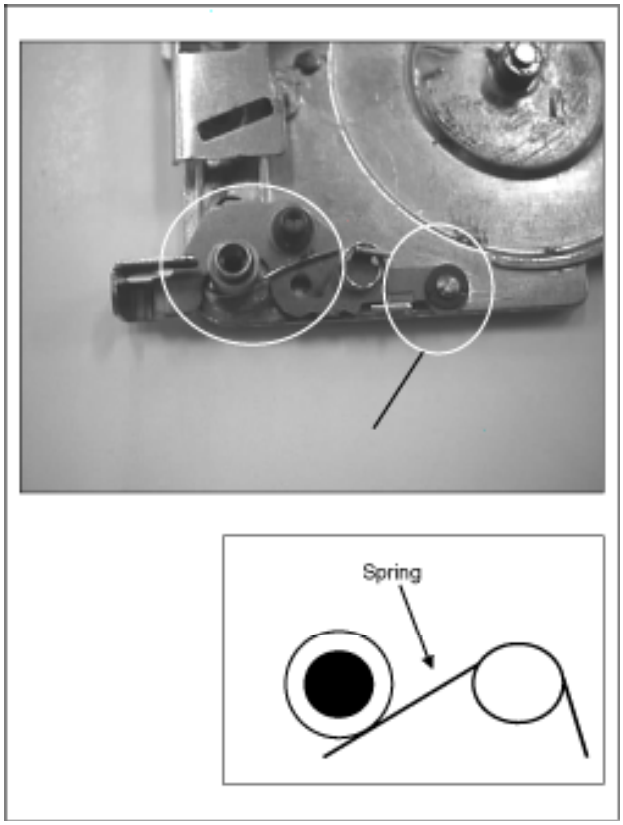


Fig. A2-3

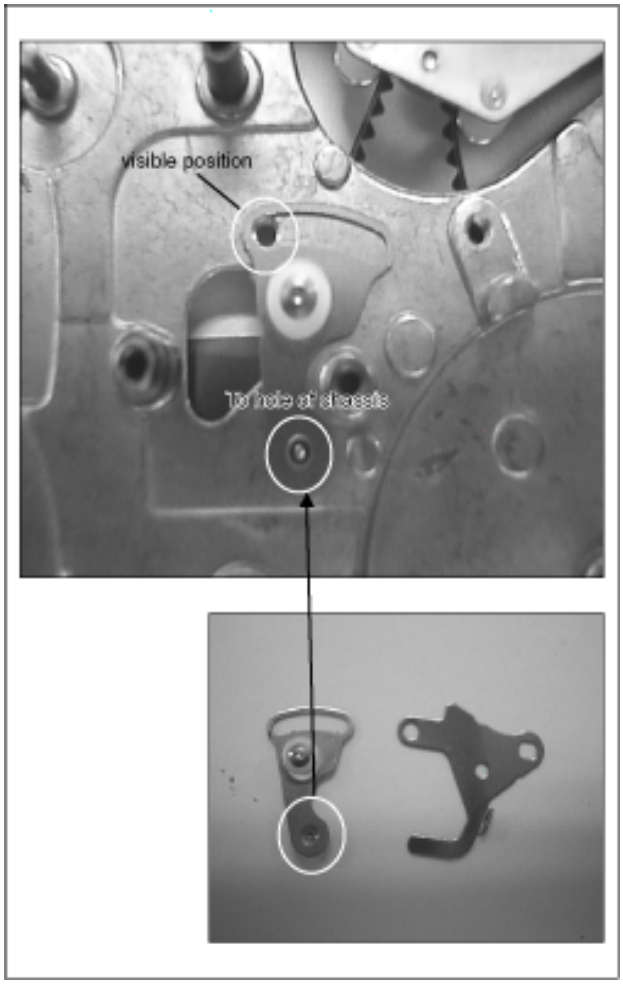


Fig. A2-4

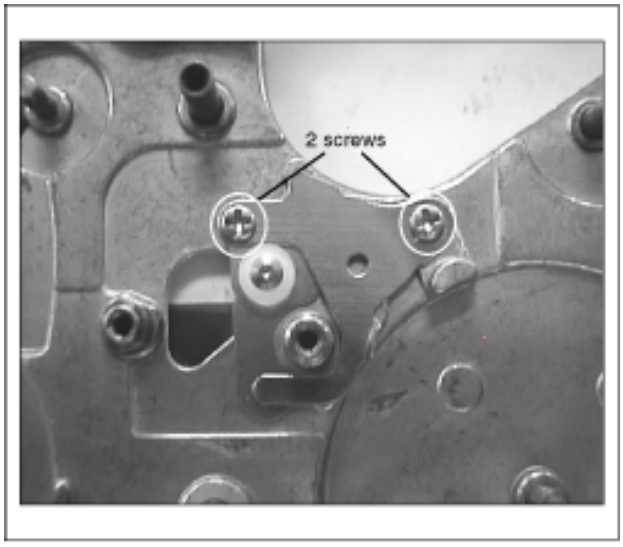


Fig. A3

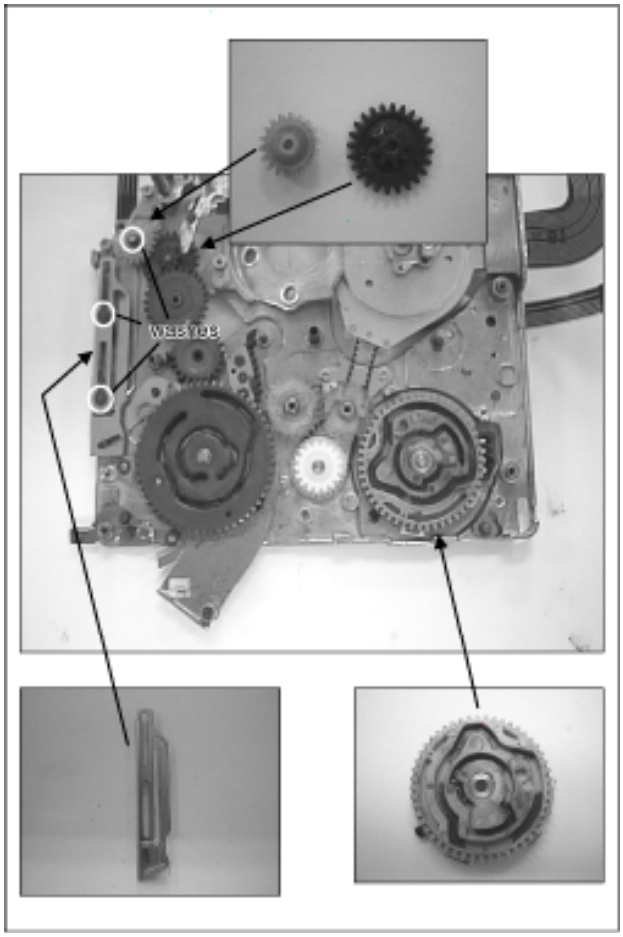


Fig. A4

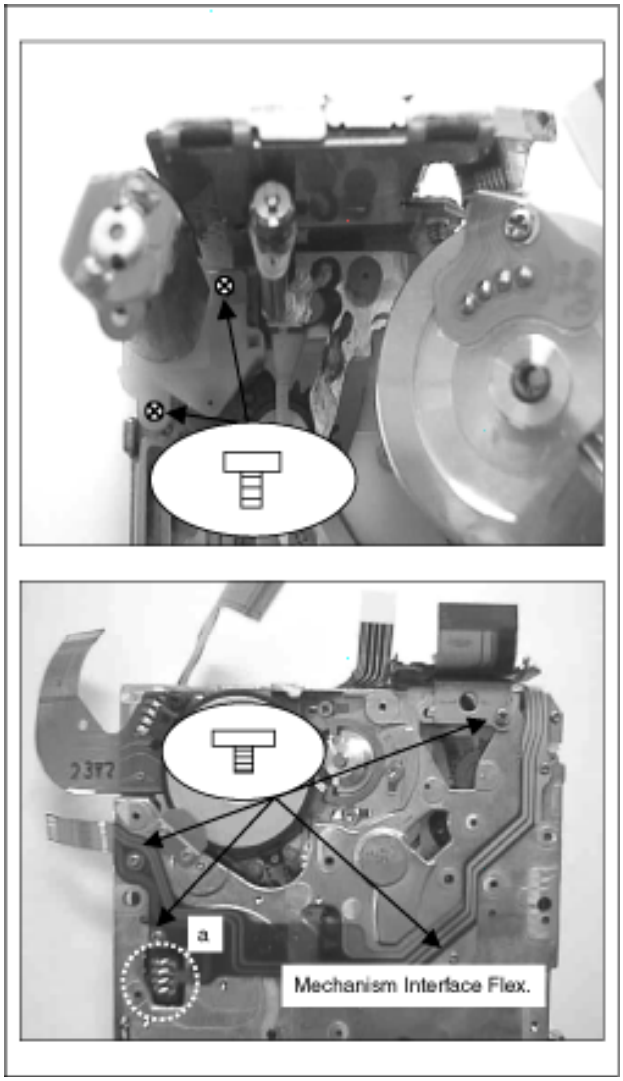


Fig. A5-1

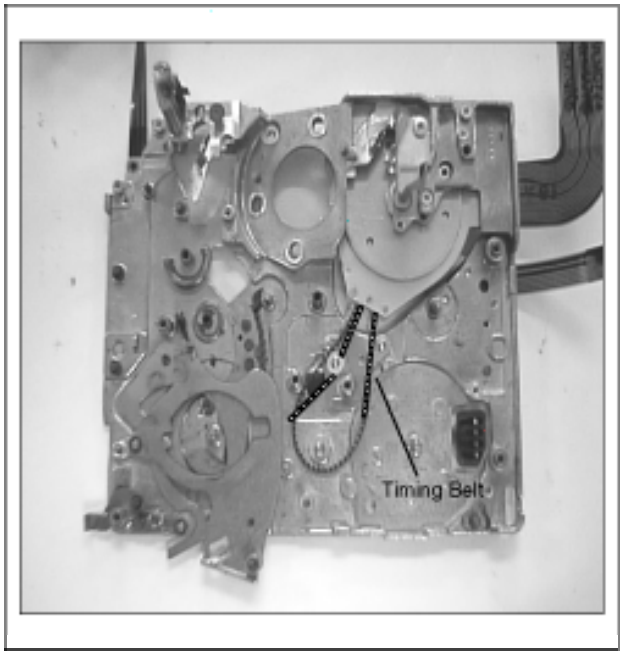


Fig. A5-2

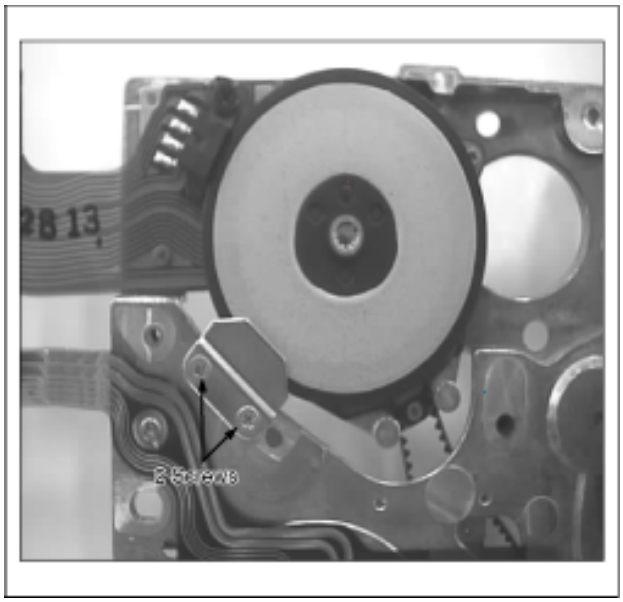


Fig. A6

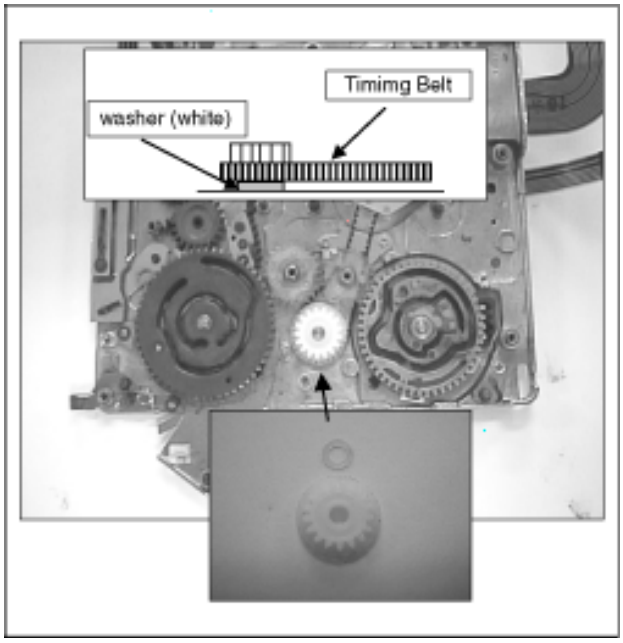


Fig. A7

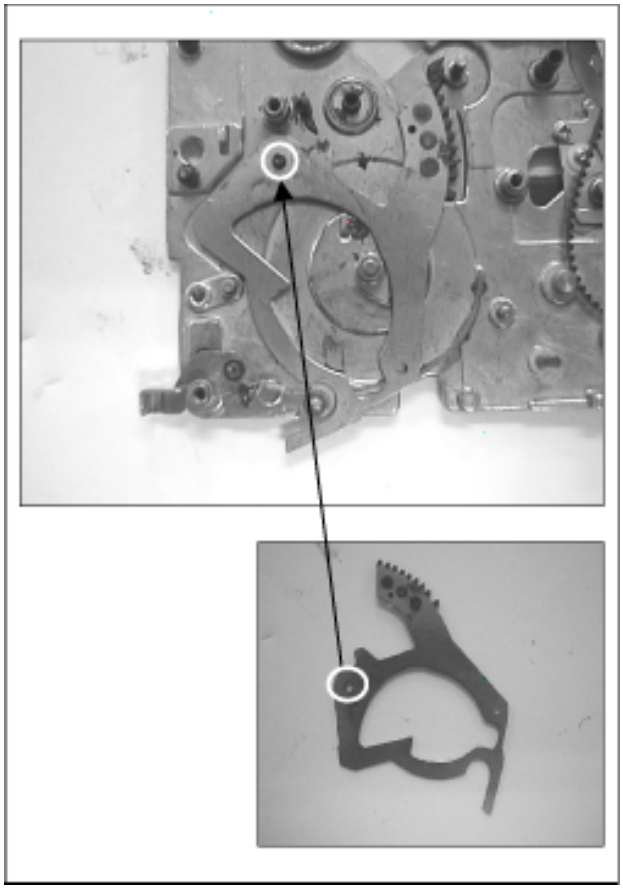


Fig. A8

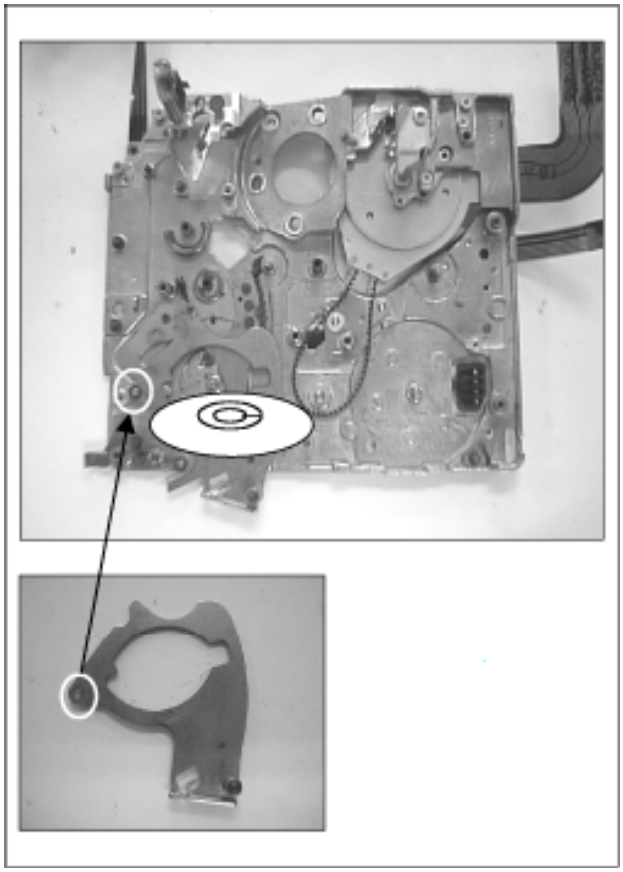


Fig. A9

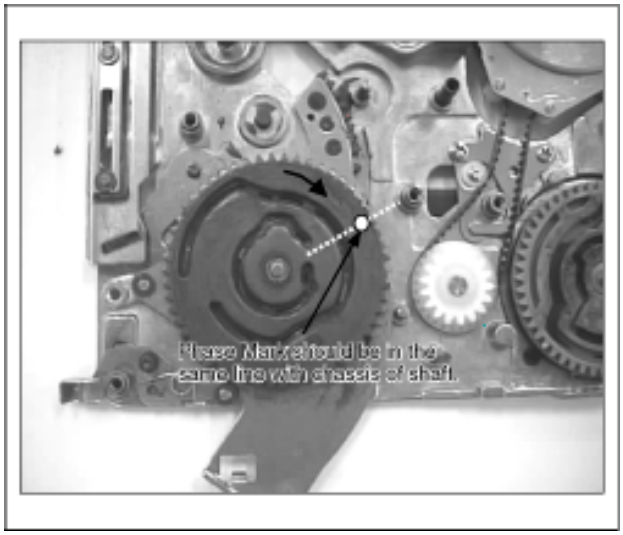


Fig. A10-1

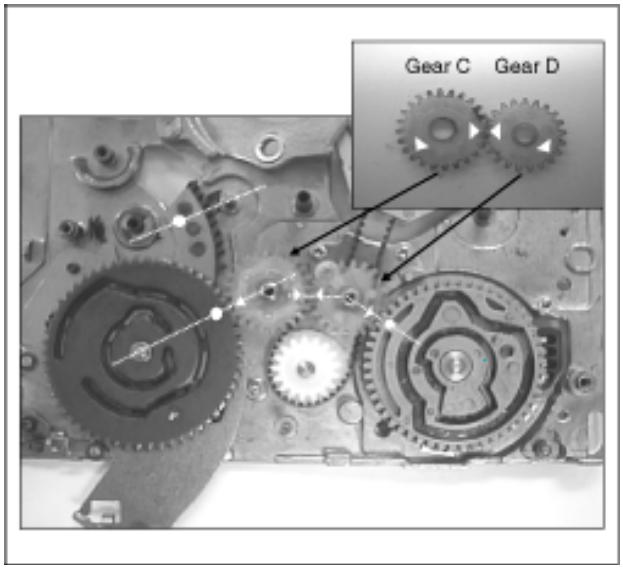


Fig. A10-2

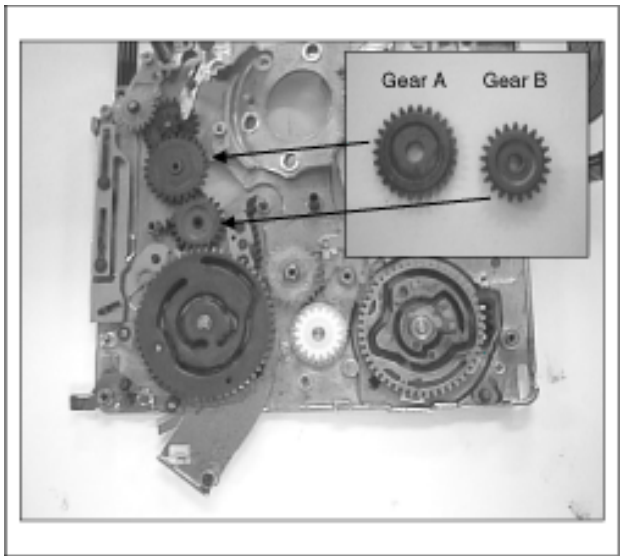


Fig. A11

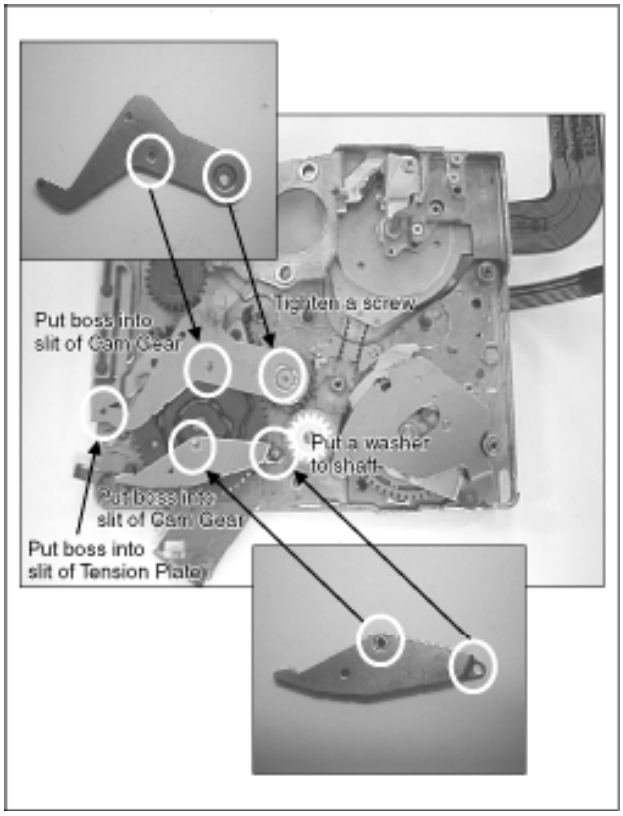

Put boss into slit of Cam Gear
Tighten a screw
Put a washer to shaft
Put boss into slit of Cam Gear
Put boss into slit of Tension Plate

Fig. A12

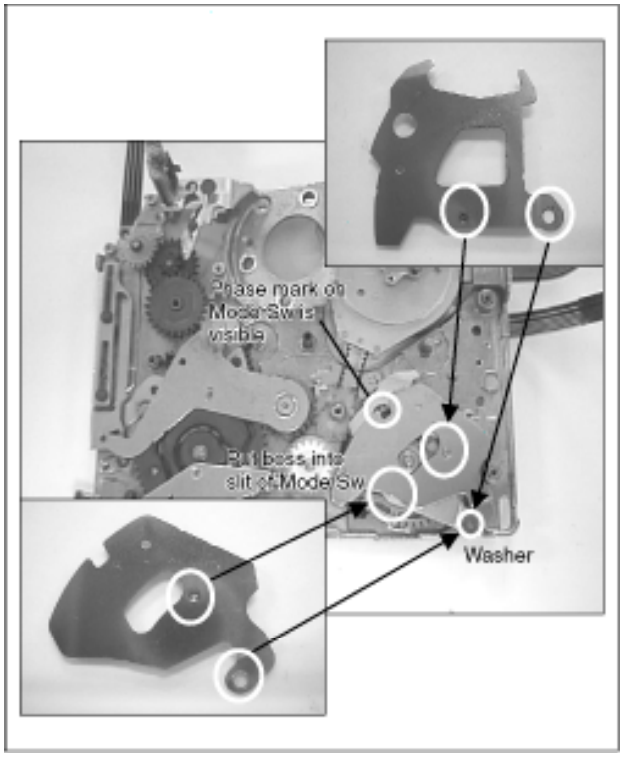


Fig. A13

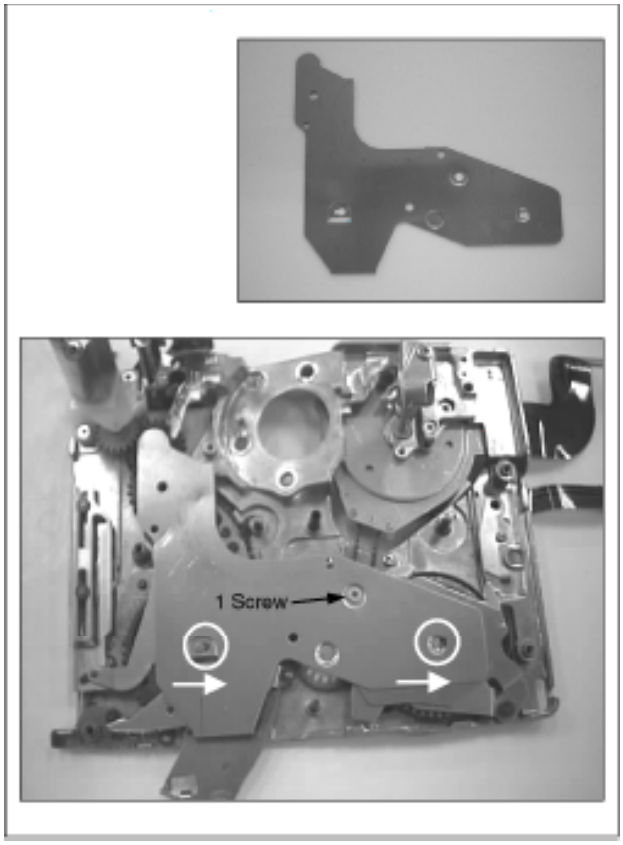


Fig. A14

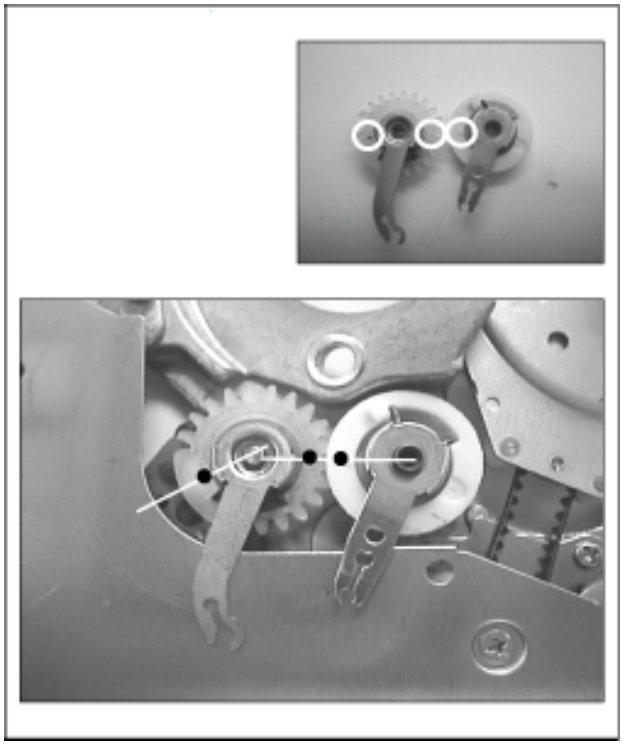


Fig. A15-1

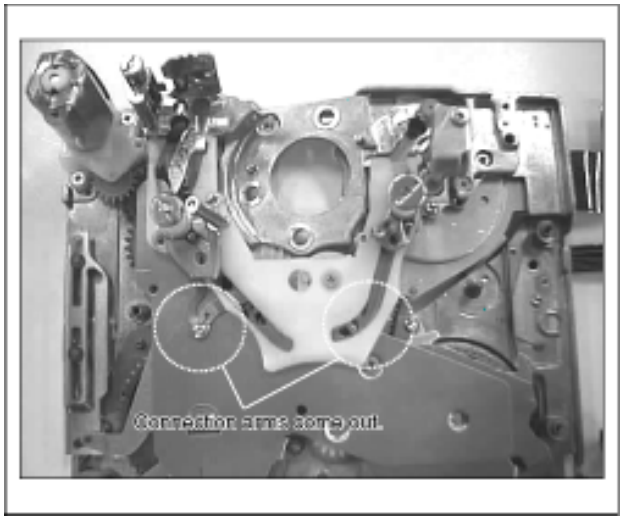


Fig. A15-2

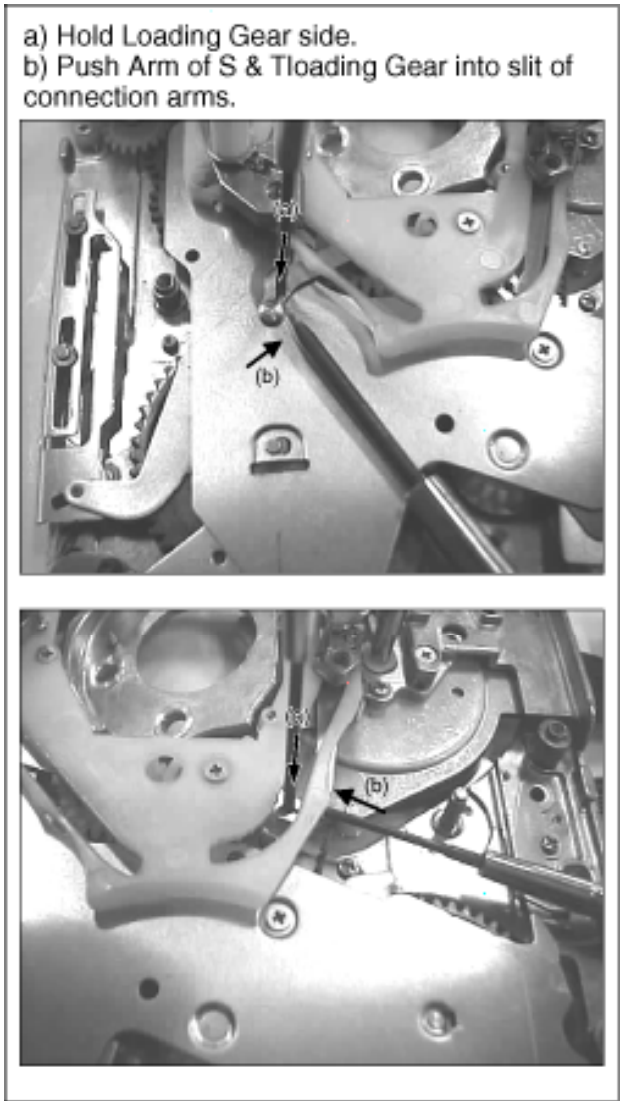

a) Hold Loading Gear side.
b) Push Arm of S & Tloading Gear into slit of connection arms.
(a)
(b)
(a)
(b)

Fig. A15-3

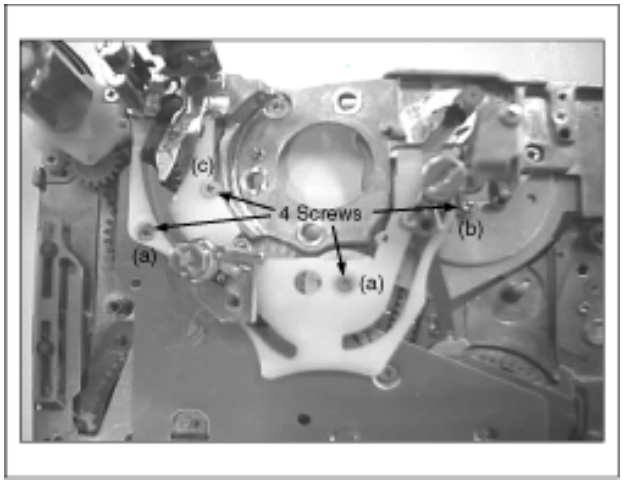

(c)
4 Screws
(b)
(a)
(a)

Fig. A16-1

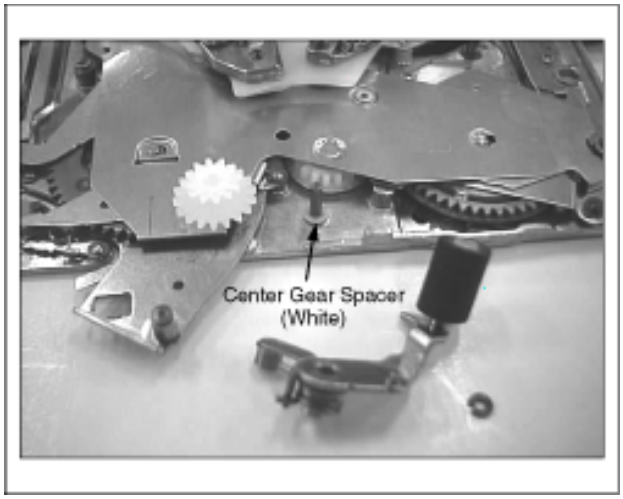


Fig. A16-2

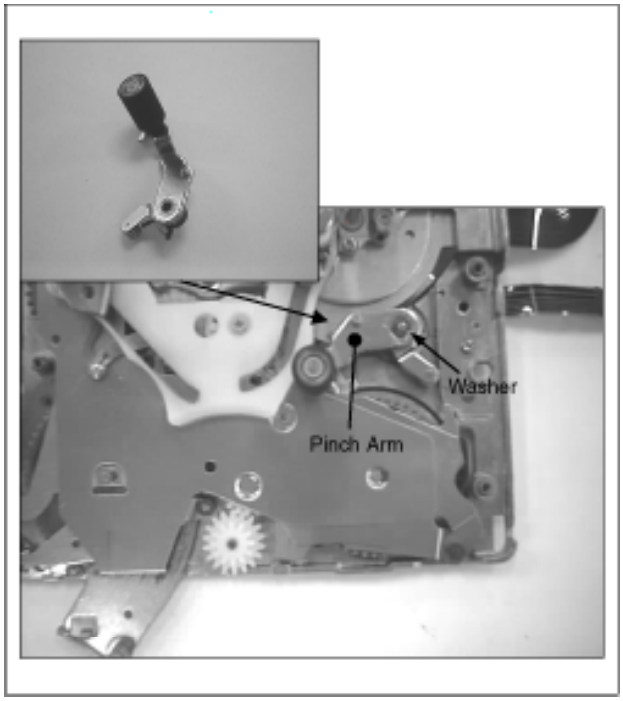


Fig. A17-1

Bottom Side of Take up

Fig. A17-2

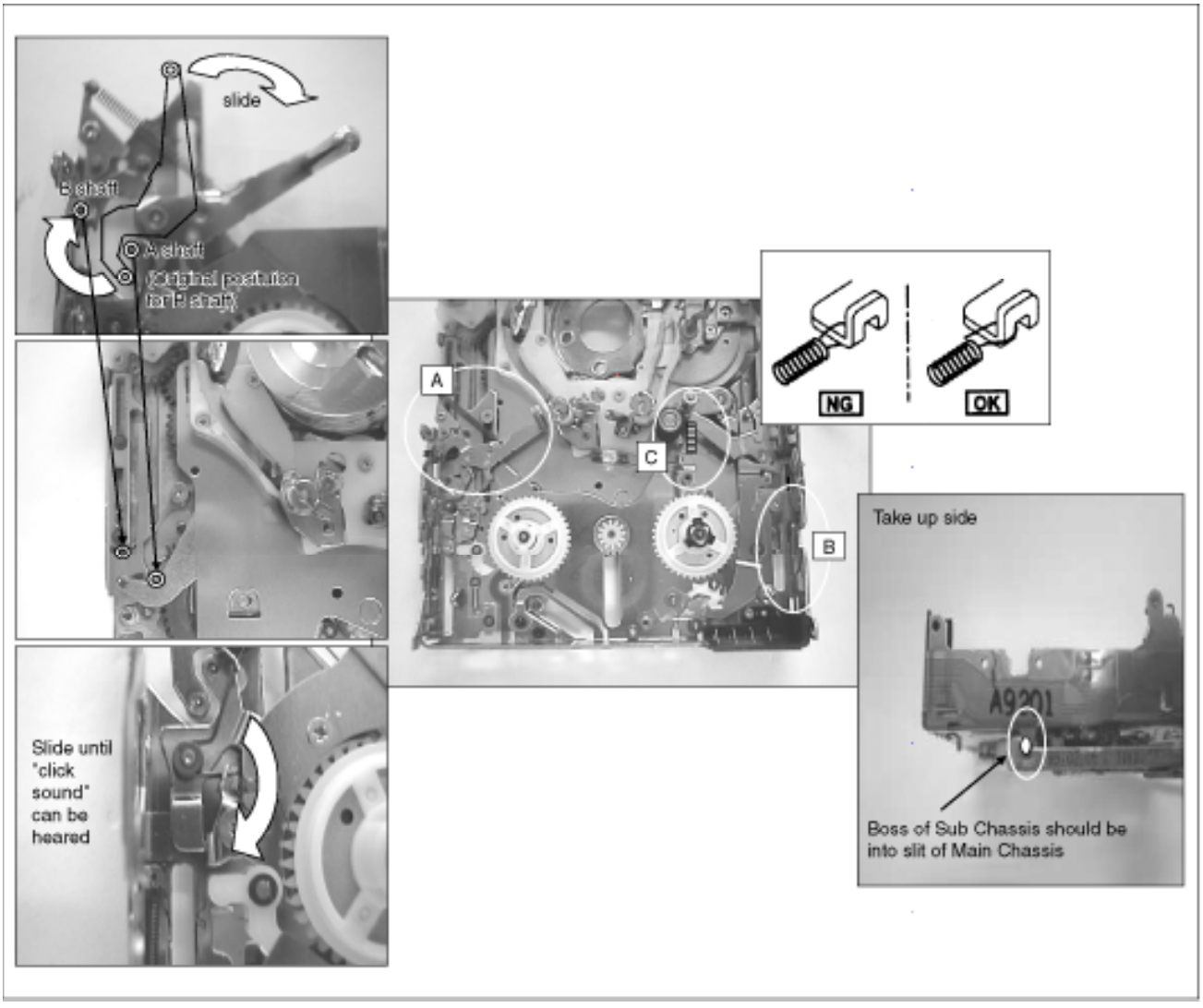

slide
B shaft
A shaft
(Original position for B shaft)
A
C
B
NG
OK
Take up side
A9201
Boss of Sub Chassis should be into slit of Main Chassis
Slide until "click sound" can be heared

Fig. A17-3

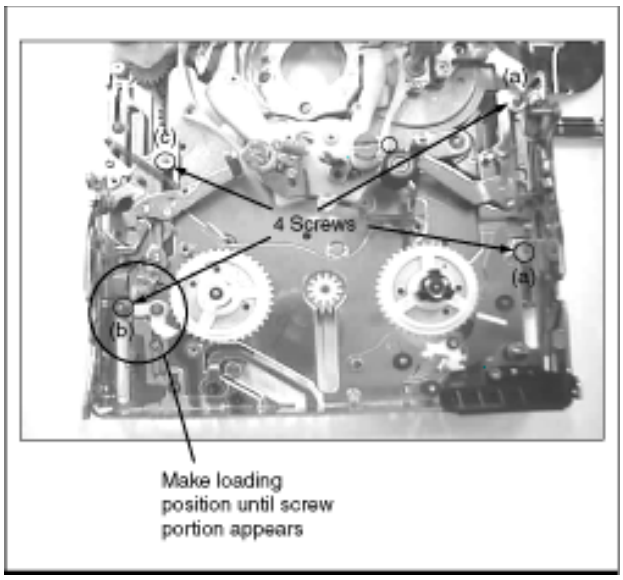


Fig. A17-4

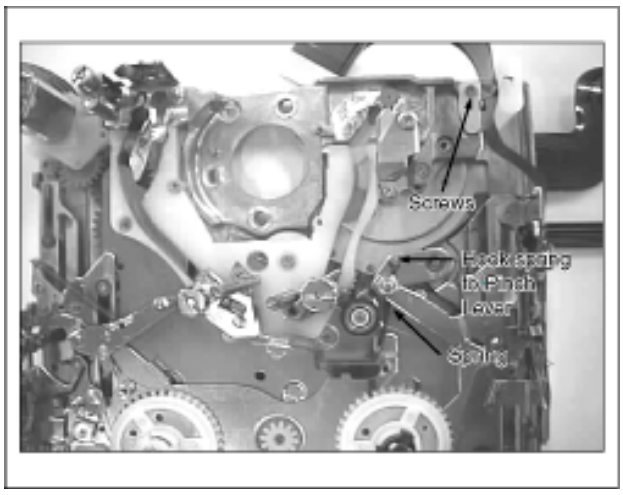


Fig. A18-1

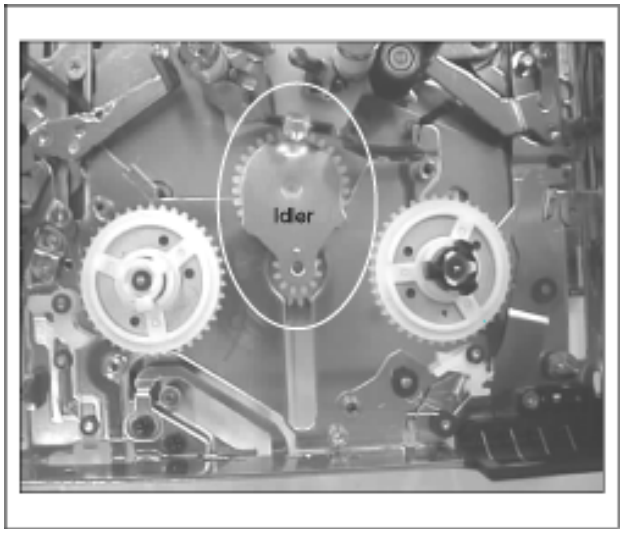


Fig. A18-2

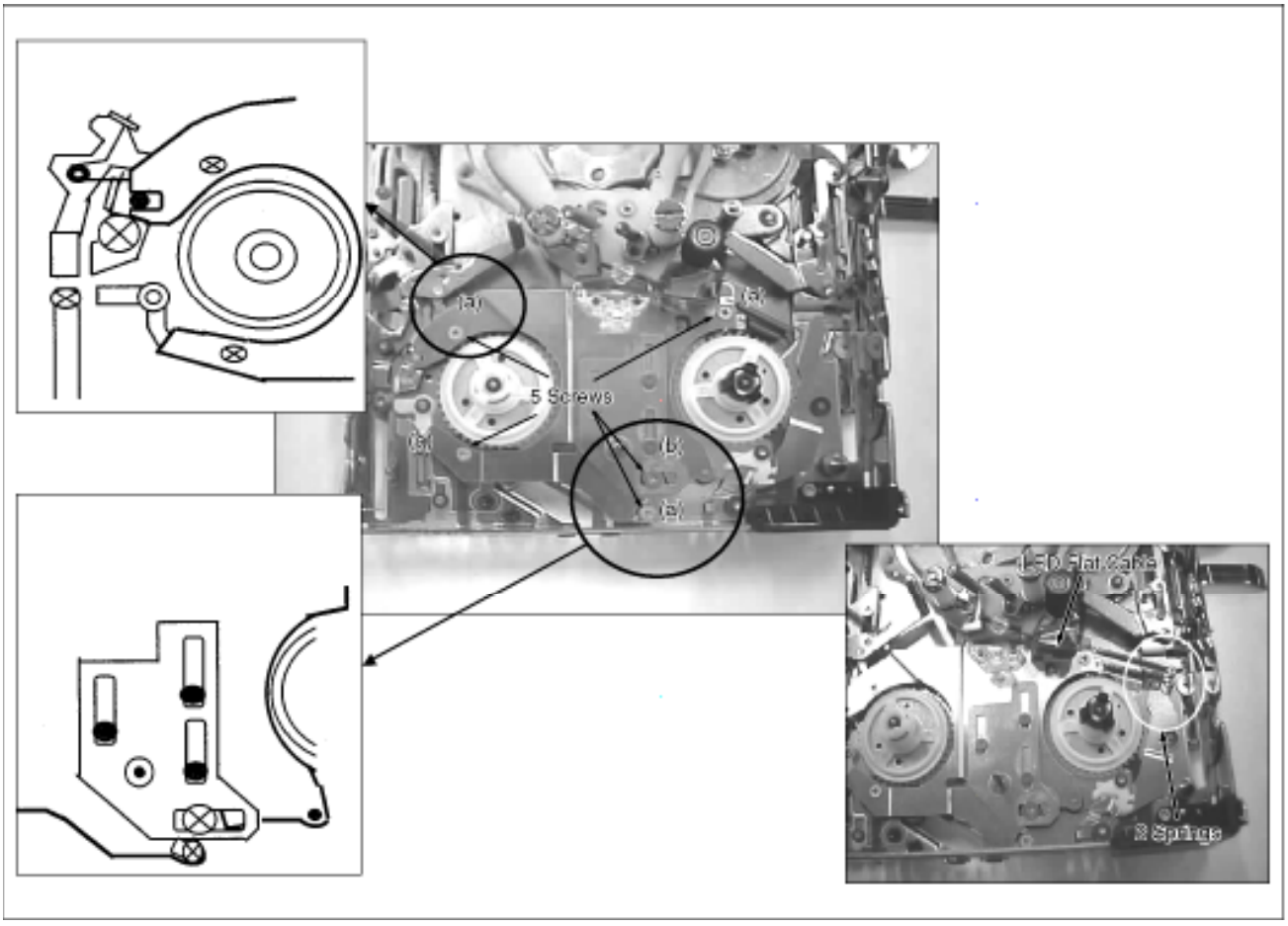


Fig. A18-3

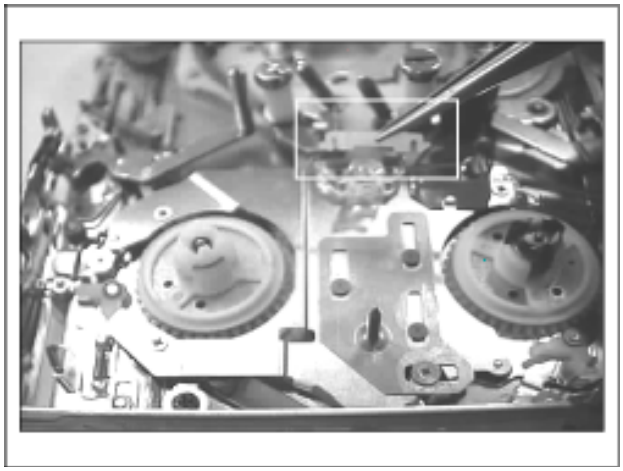


Fig. A19-1

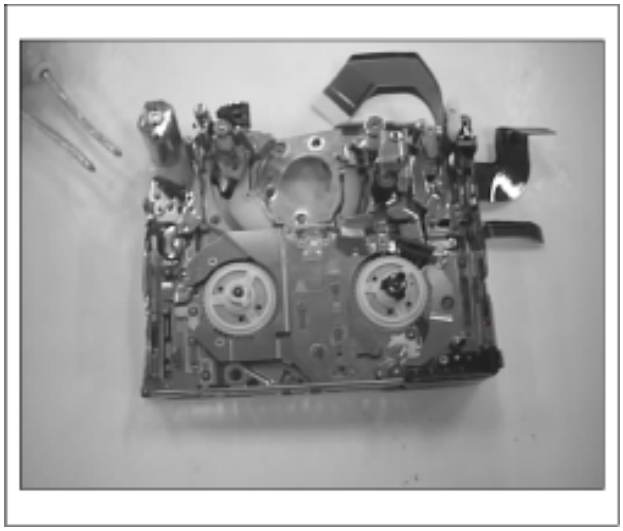


Fig. A19-2

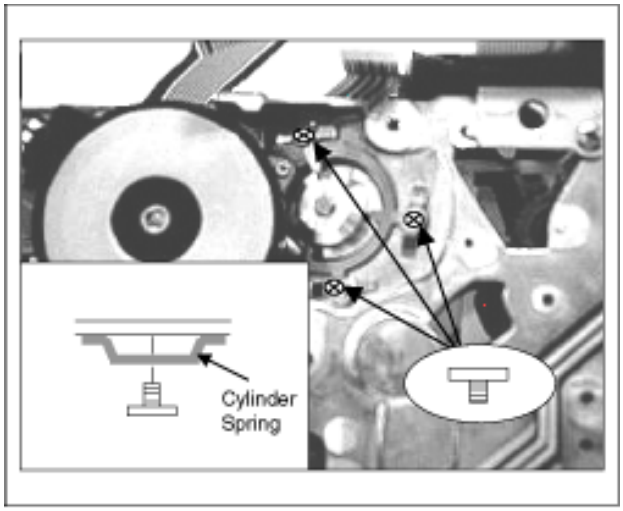


FIg. A19-3

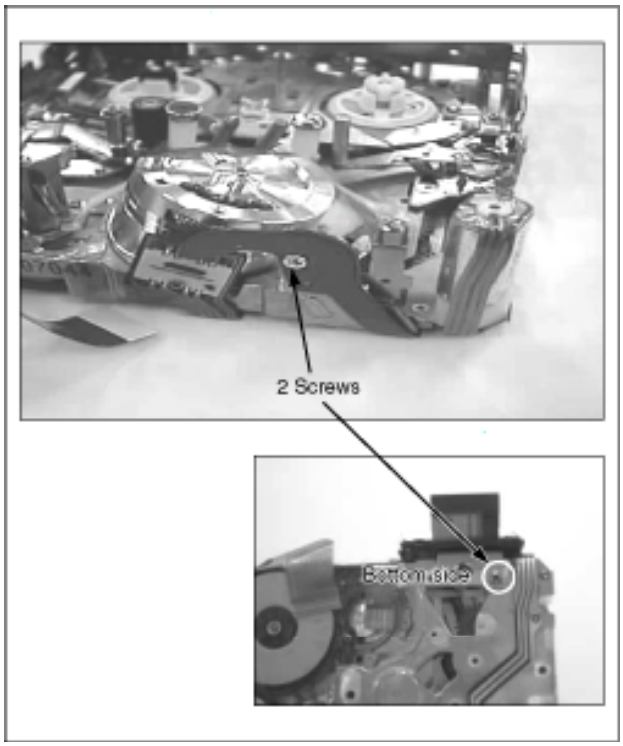


Fig. A20-1

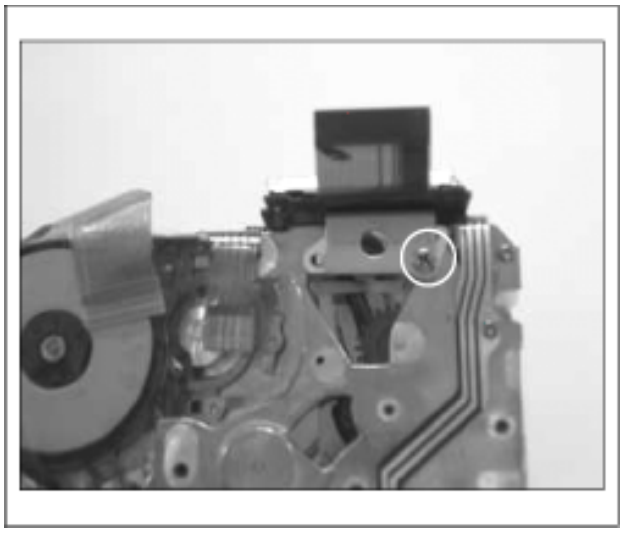


Fig. A20-2

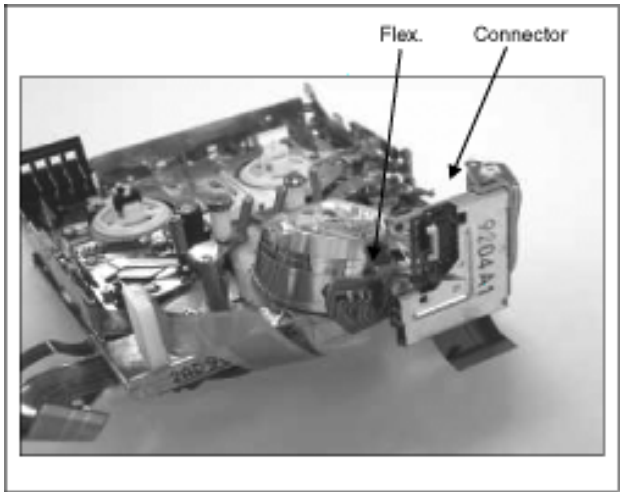


Fig. A20-3

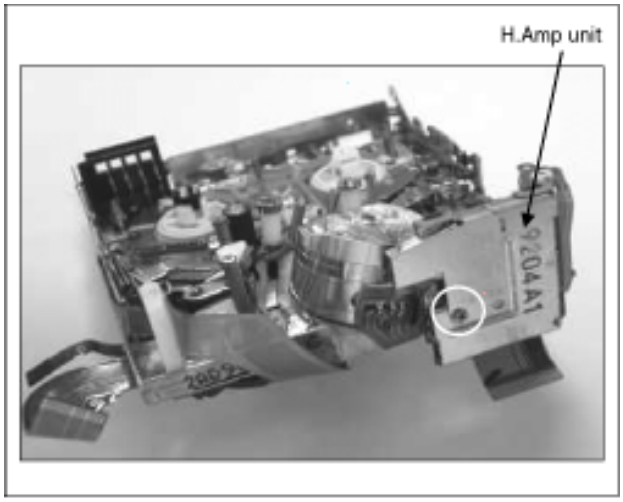


Fig. A21-1

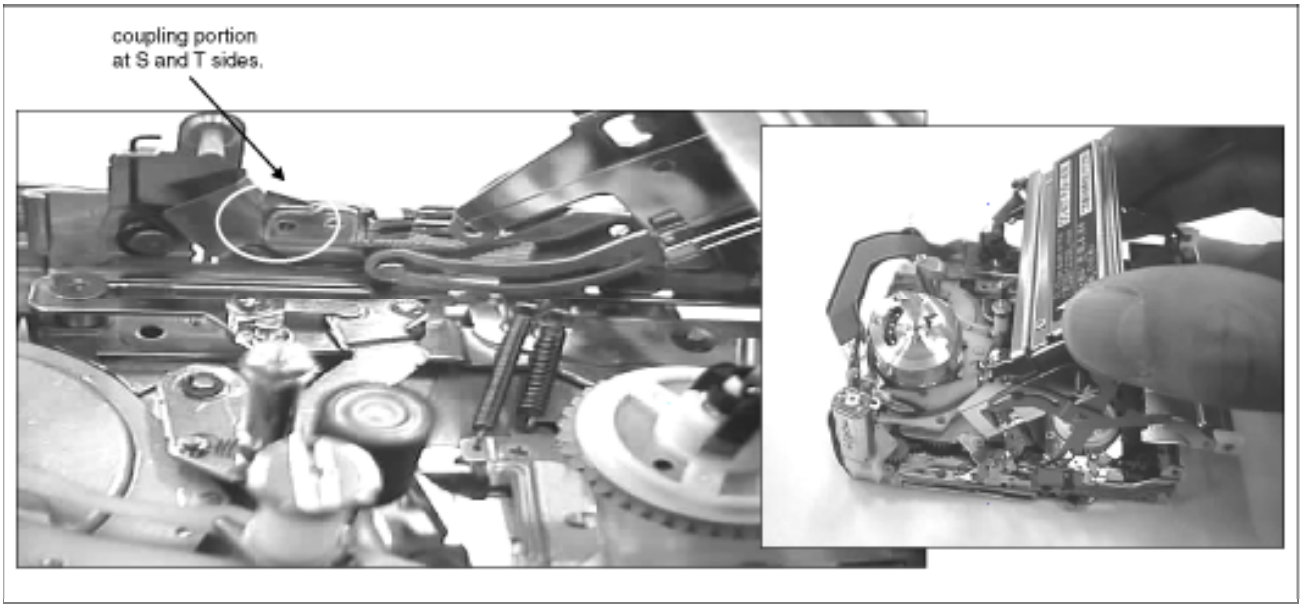


Fig. A21-2

TOP PREVIOUS NEXT

5.1 MECHANICAL ADJUST TABLE

TOP PREVIOUS NEXT

* 1) H.Amp Unit is applied only Q1 & Q2 mechanism.

No.	Item	Confirmation of Tape Running	Linearity Adjustment	Confirmation of B.E.R. Value	Capstan tilt Adjustment	S3 Base adjustment	Sub Chassis Adjustment
1	MECHANISM CHASSIS	--	--	•	--	--	--
2	Cassette Up Unit.	--	--	--	--	--	--
*3	H Amp Unit.	--	--	•	--	--	--
4	Cylinder Unit	•	•	•	--	--	--
5	RT Flex. Flame.	--	--	--	--	--	--
6	LED Holder	--	--	--	--	--	--
7	Cover Plate	--	--	--	--	--	--
8	Idler U.	--	--	•	--	--	--
9	Sub Chassis Unit	•	•	•	--	--	•
10	Pinch Arm	•	•	•	--	--	--
11	Center Gear	--	--	•	--	--	--
12	Rail Unit	•	•	•	--	--	--
13	S-Loading Gear	--	--	•	--	--	--
14	T-Loading Gear	--	--	•	--	--	--
15	Gear Cover	--	--	•	--	--	--
16	Pinch Beetle	--	--	•	--	--	--
17	Release Beetle	--	--	•	--	--	--
18	Tension Lever	•	•	•	--	--	--
19	Eject Arm	--	--	--	--	--	--
20	Interface Gears	--	--	•	--	--	--
21	Cam Gear	--	--	•	--	--	--
22	Chassis Radon	--	--	--	--	--	--
23	Boat Radon	--	--	--	--	--	--
24	Drive Gear	--	--	•	--	--	--
25	Capstan Holder	--	--	--	--	--	--
26	Capstan Motor	•	•	•	•	--	--
27	Loading Motor Unit	--	--	--	--	--	--

28	Mechanism Interface Flex.	--	--	--	--	--	--
29	Mode Switch	--	--	--	--	--	--
30	Deceleration Gears	--	--	•	--	--	--
31	Tension Plate	•	•	•	--	--	--
32	T4 Guide	--	--	--	--	--	--
33	Eject Lever	--	--	--	--	--	--
34	Pulley Cover	--	--	--	--	--	--
35	Pulley	--	--	--	--	--	--
36	S3 Base U.	•	•	•	--	•	--

TOP PREVIOUS NEXT

5.2 MECHANICAL ADJUSTMENT PROCEDURE

TOP PREVIOUS NEXT

No.	Item	Equipment	Fig.	Procedure
1	Confirmation of Tape Running	1. Alignment Tape (PAL: VFM3110EDS/NTSC: VFM3010EDS) 2. Post Adjustment Driver(VFK1278)	Fig. AD1-1	1) Confirm each post position in playback mode.
			Fig. AD1-2	2) Confirm condition of tape regulation in playback & review mode.
2	Linearity Adjustment	1.Tatsujin system(Refer to Fig.)	Fig. AD2-1	1) Set up Tatsujin System.
		2. Alignment Tape (PAL: VFM3110EDS/NTSC: VFM3010EDS) 3. Envelope Detecor Board (VFK1641) 4. Post Adjustment Driver (VFK1278)	Fig. AD2-2	2) Connect Envelope Detector Board between Measuring Board & Oscilloscope.
			--	3) Remove Adjustment Cover. * Location for Adjustment Cover depends on Models.
			Fig. AD2-3	4) Playback the Alignment Tape and adjust S2 & T3 posts by Screw Driver until wavefom becomes flat. After adjustment, B.E.R. should be confirmed by Electrial adjustment on the "Tatsujin".
3	Confirmation of B.E.R. Value	1.Tatsujin system(Refer to Fig.)	Fig. AD2-1	1) Refer to Electrical Adjustment on the "Tatsujin".
4	Capstan tilt Adjustment	1. Capstan Tilt Adj. Jig(VFK1638) 2. Small Phillips Screw Driver	Fig. AD4-1	1) Slide sensor pin to Capstan shaft. After touching,if OK, LED should be lit. * Do not touch when you confirm LED lit or not.
			Fig. AD4-2	2) If Ng, Capstan tilt should be adjusted. a) Tighten screw (A) until LED is lit. b) Loose screw (B) until LED is not lit. c)Tightenscrew (A) unti-clockwise until LED is lit .
5	S3 Base adjustment	1. Post Adjustment Driver(VFK1278)	Fig. AD5-1	1) Adjust S3 screw as Evvelope becomes flat.
			Fig. AD5-2	2) Tighten a screw 180 degree as "ENV 1". 3) Loosen a screw as ENV 2. 4) Tighten a screw until ENV becomes flat as ENV 3 and tighten a screw 180 degree again.
6	Sub Chassis Adjustment	1. Small Phillips Screw Driver	Fig. AD6-1	1) Make Review Position. * Set Loading mode and then,stop Pinch Roller & Capstan shaft is touched.

			Fig. AD6-2	2) Loosen a screw. After fixing a shaky Sub Chassis,then tighten a screw.

Fig. AD1-1

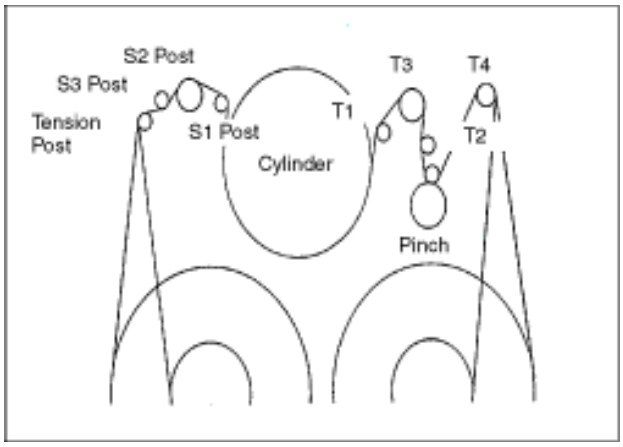


Fig. AD1-2

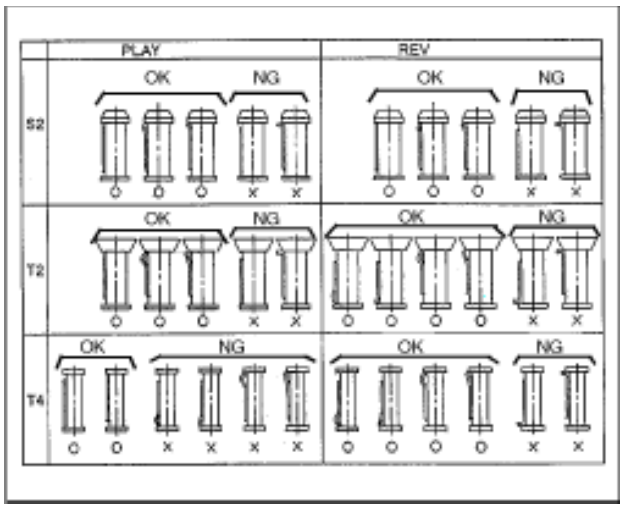


Fig. AD2-1

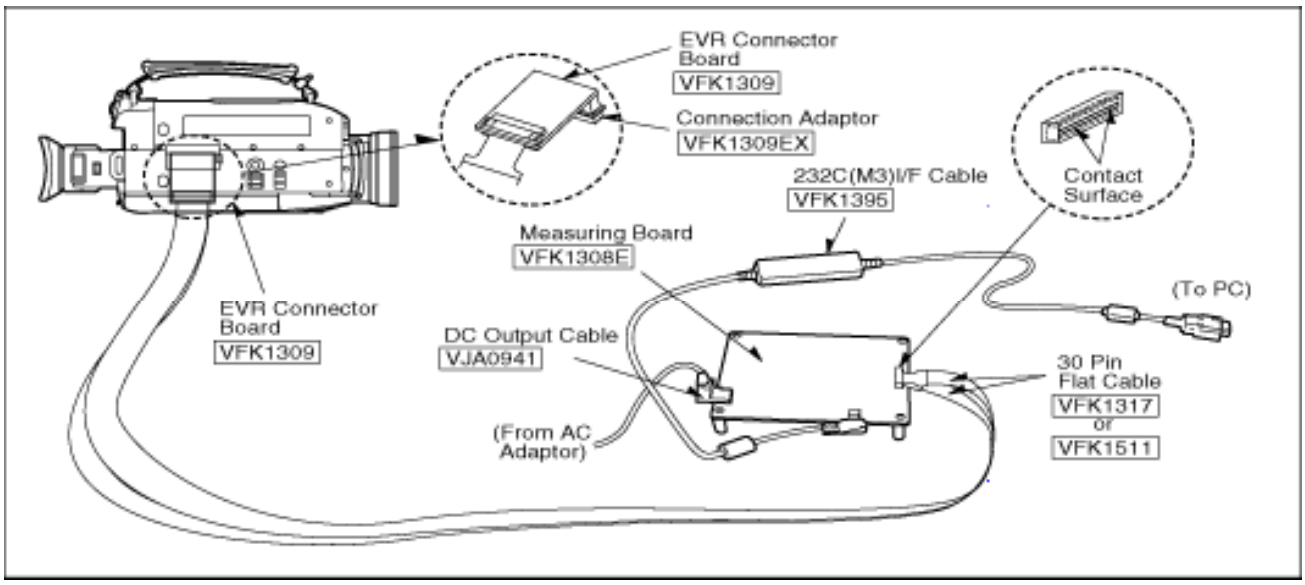


Fig. AD2-2

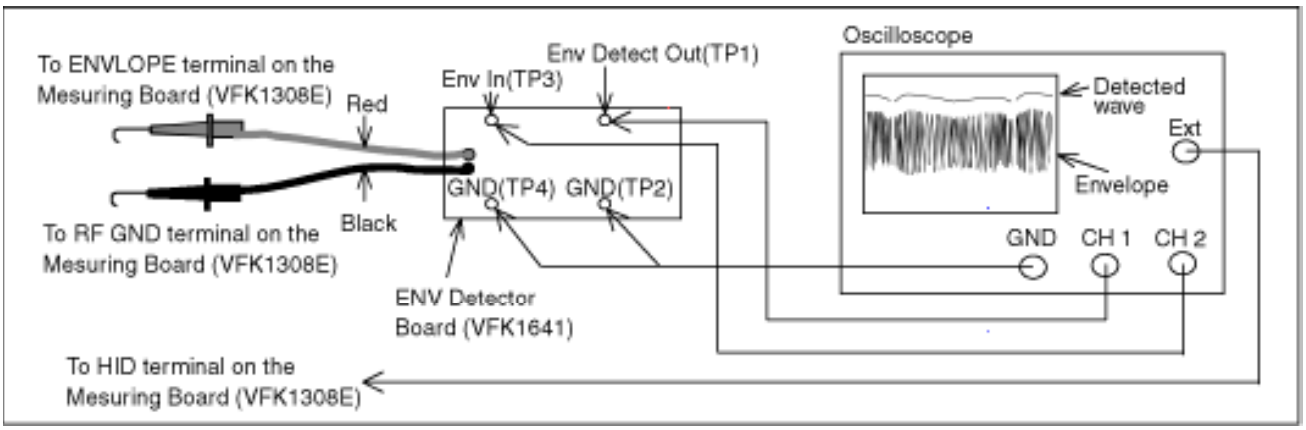


Fig. AD2-3

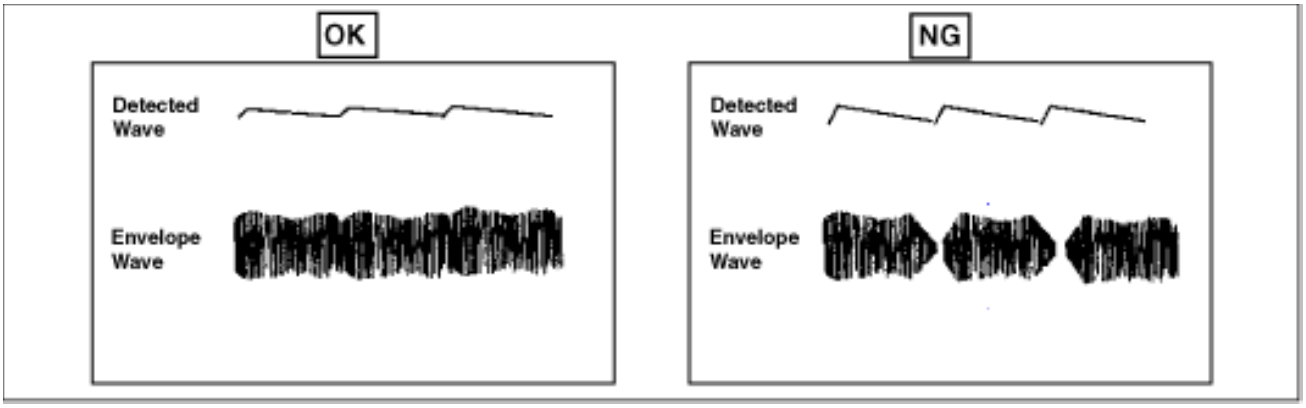


Fig. AD4-1

Fig. AD4-2

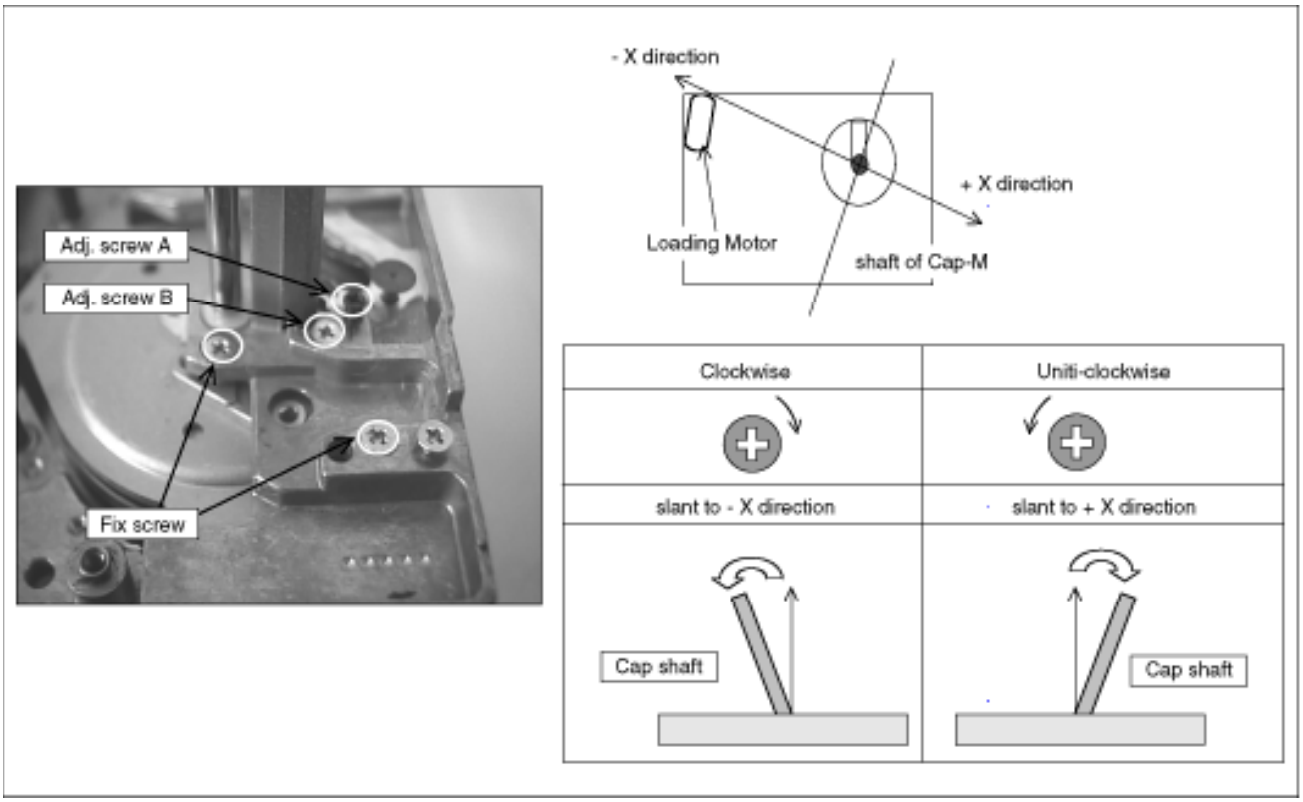


Fig. AD5-1

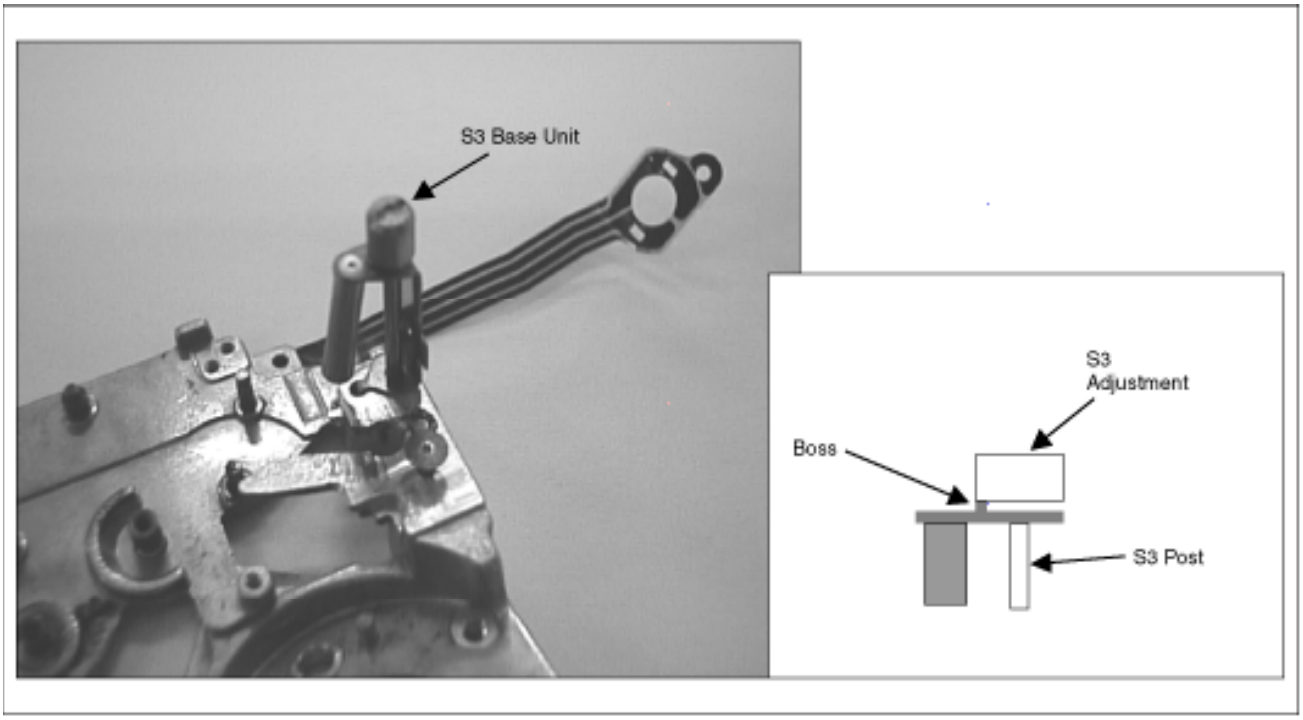


Fig. AD5-2

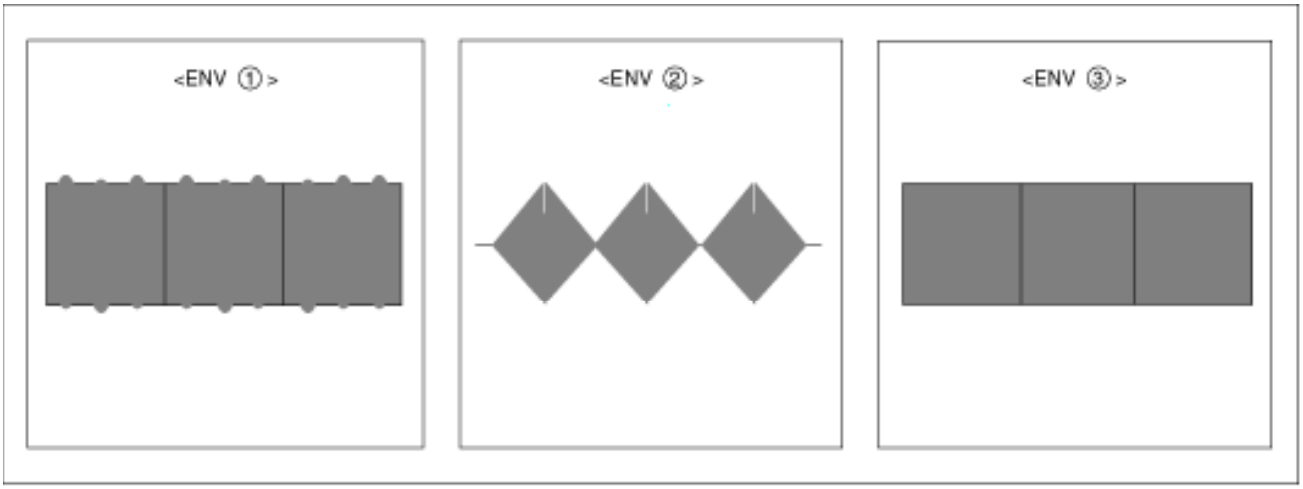


Fig. AD6-1

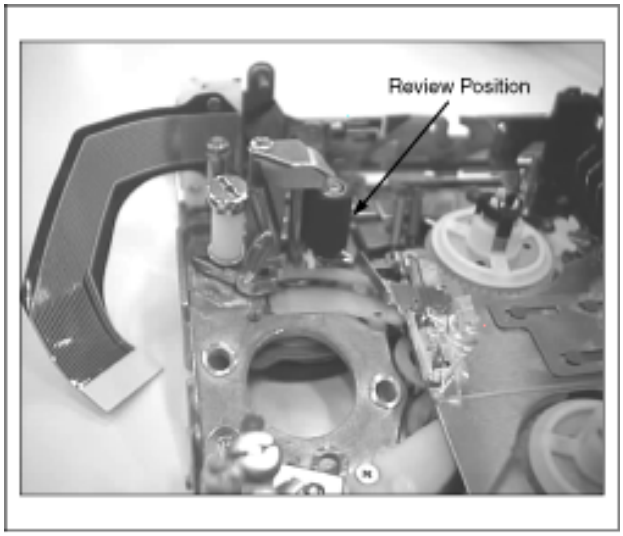
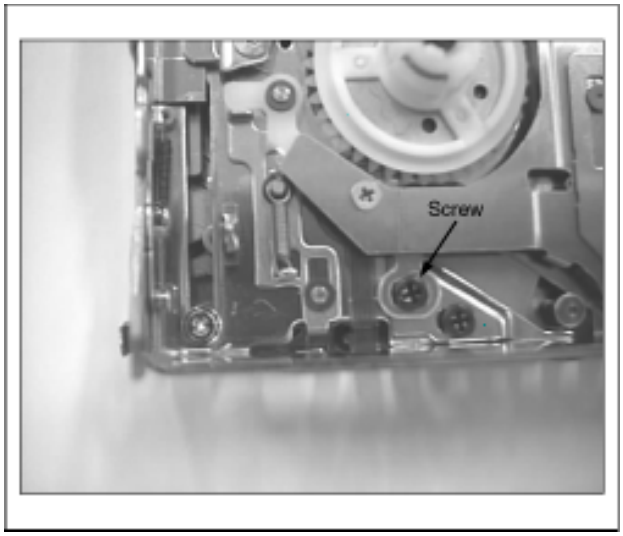


Fig. AD6-2



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6.1 Q1& Q2 VCR MECHANISM SECTON (1)

TOP PREVIOUS NEXT

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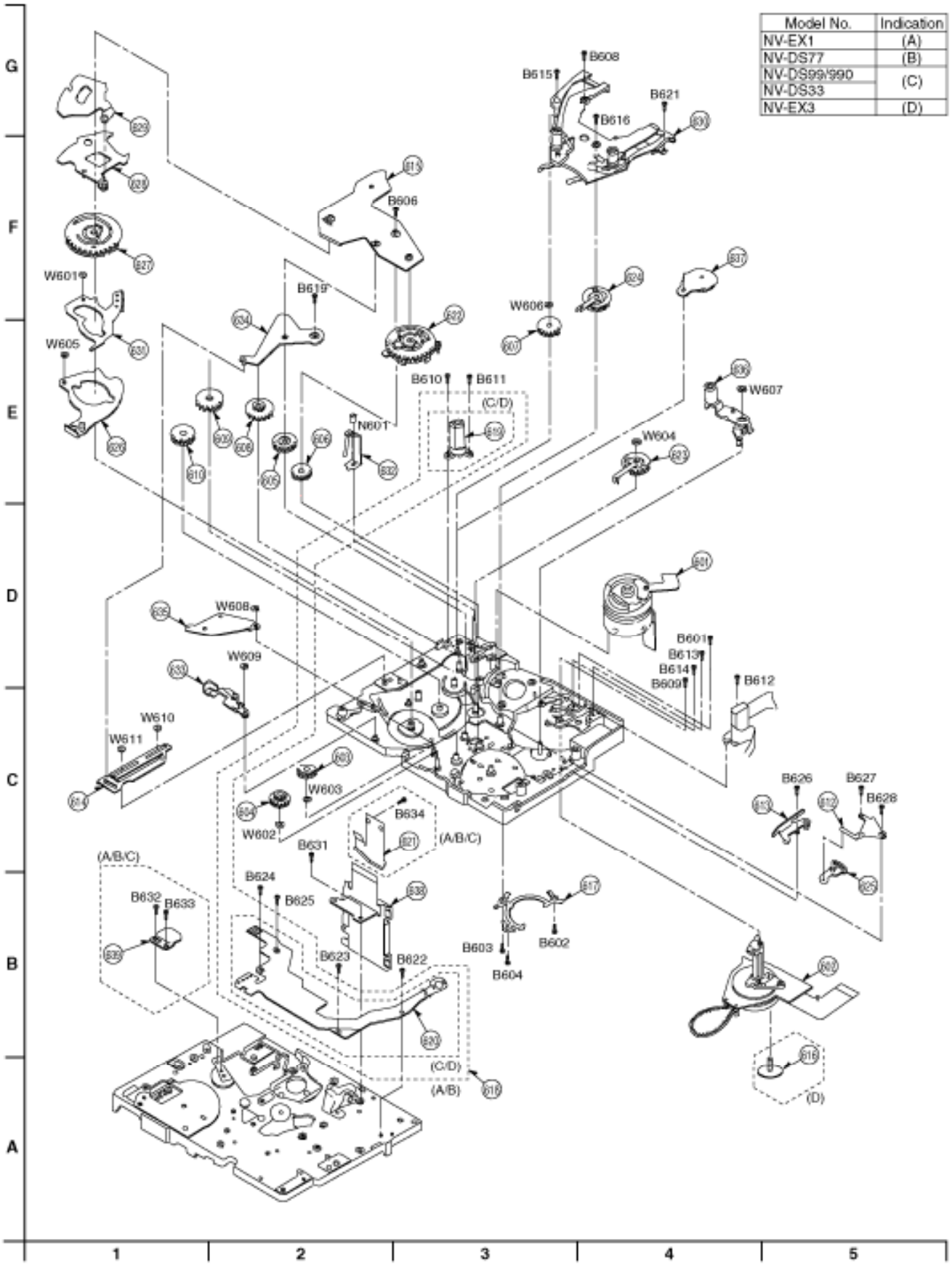
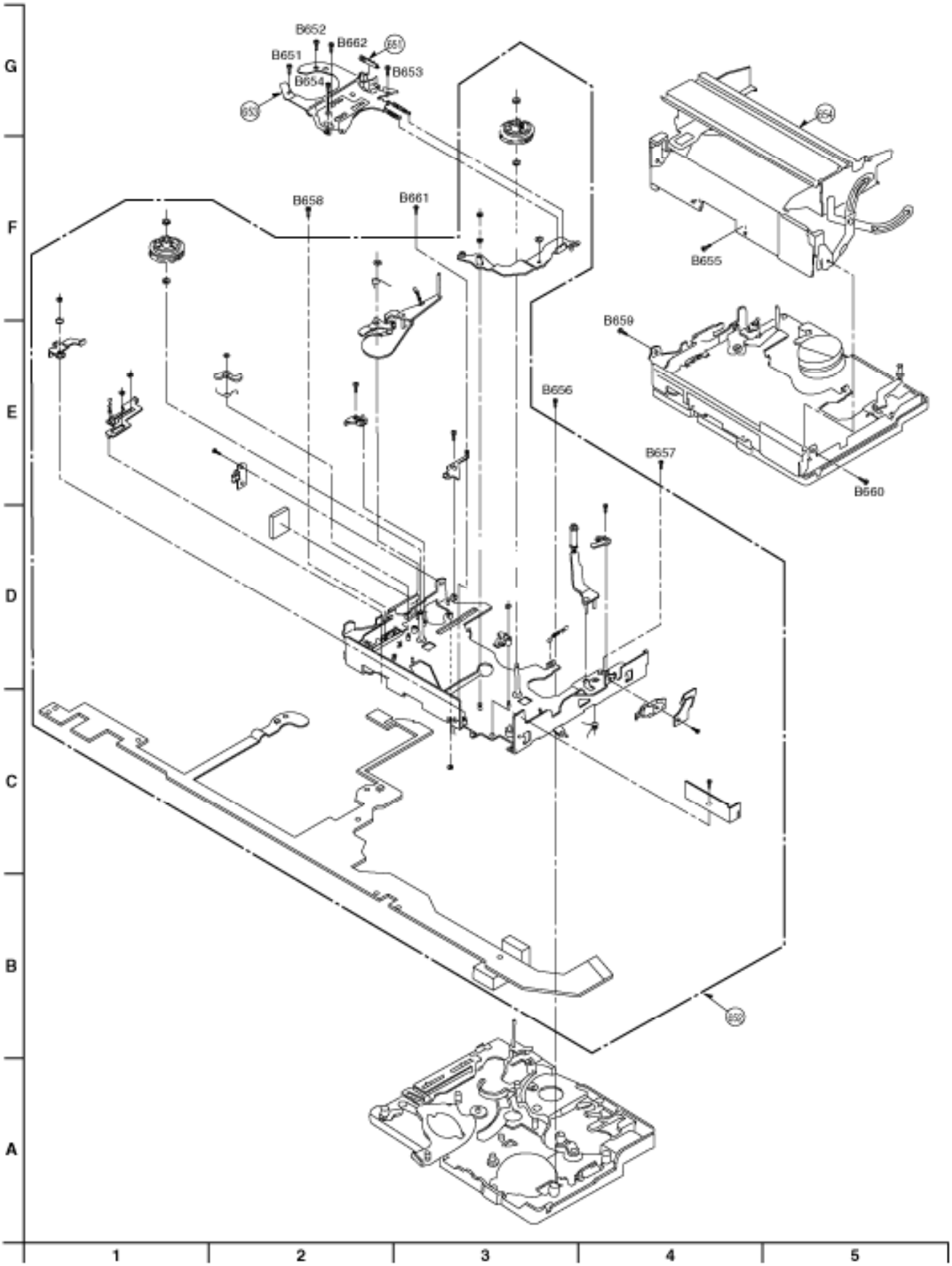

Model No. | Indication
NV-EX1 | (A)
NV-DS77 | (B)
NV-DS99/990 | (C)
NV-DS33 | (C)
NV-EX3 | (D)
G
F
E
D
C
B
A
1
2
3
4
5
B608
B615
B621
B616
B606
B619
W601
W605
W606
B610
B611
(C/D)
W607
W604
N601
W608
W609
W610
W611
W603
W602
B601
B613
B614
B609
B612
B626
B627
B628
B634
(A/B/C)
B631
B624
B625
B632
B633
B623
B622
B603
B602
B604
(C/D)
(A/B)
(D)

6.2 Q1& Q2 VCR MECHANISM SECTION (2)

TOP PREVIOUS NEXT

TOP PREVIOUS NEXT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B662
B651
B653
B654
B658
B661
B655
B650
B656
B657
B660
G
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E
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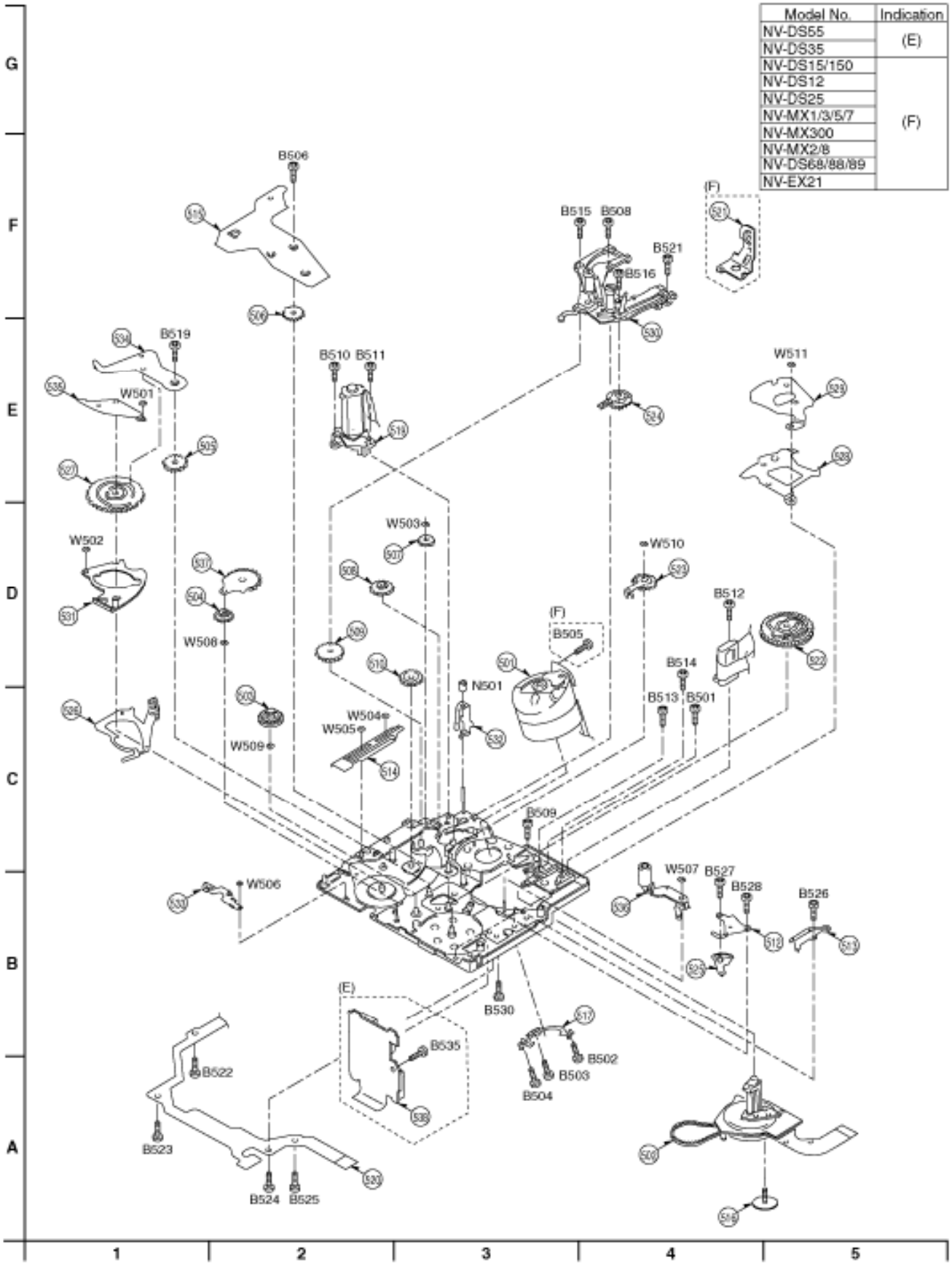
6.3 Q3 VCR MECHANISM SECTION (1)

TOP PREVIOUS NEXT

TOP PREVIOUS NEXT

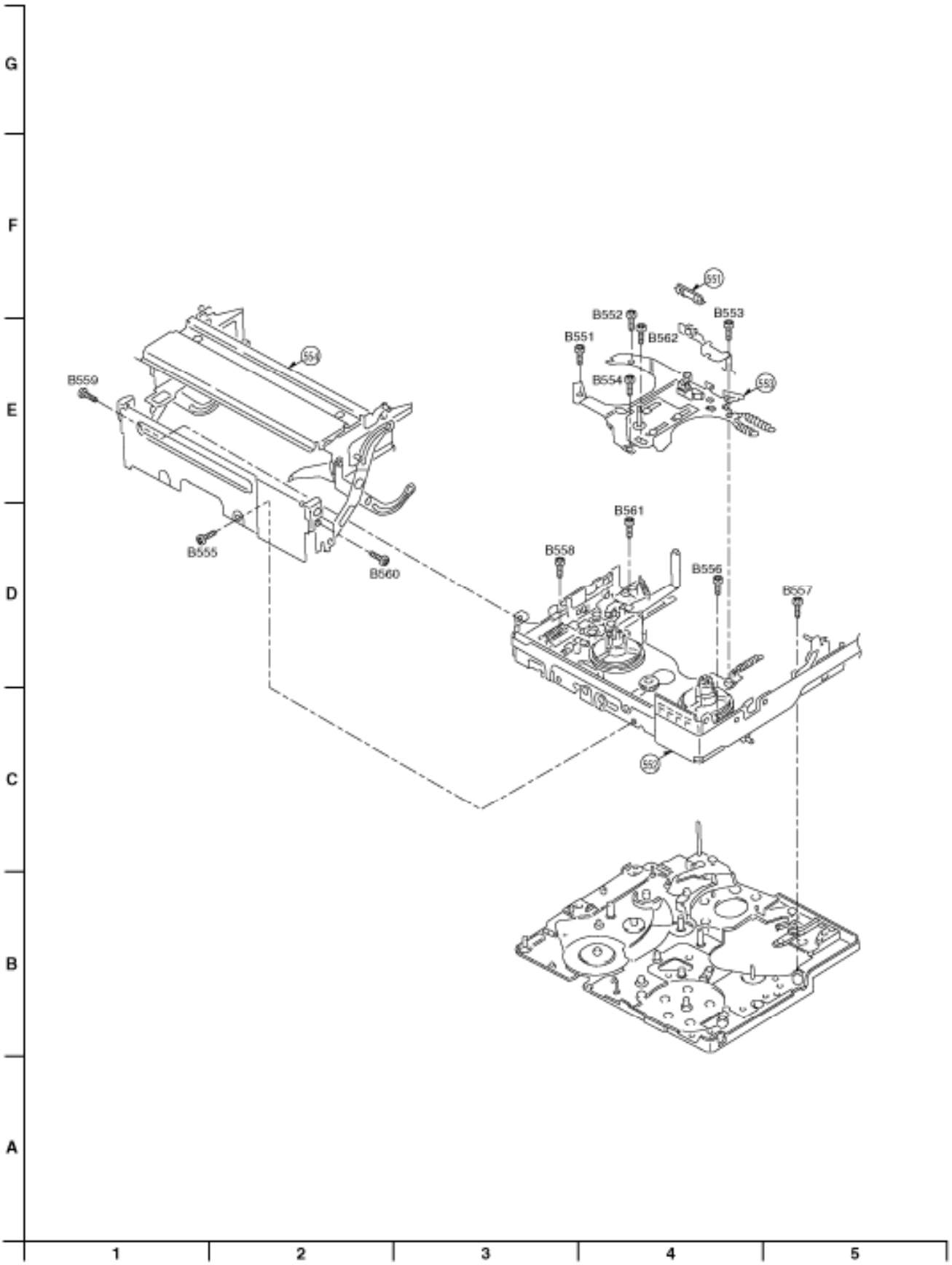
Model No.	Indication
NV-DS55	(E)
NV-DS35	
NV-DS15/150	(F)
NV-DS12	
NV-DS25	
NV-MX1/3/5/7	
NV-MX300	
NV-MX2/8	
NV-DS68/88/89	
NV-EX21	



6.4 Q3 VCR MECHANISM SECTION (2)

TOP PREVIOUS NEXT

TOP PREVIOUS NEXT


G
F
E
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C
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A
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7.1 Q1& Q2 VCR MECHANISM SECTION
(1) PARTS LIST

TOP PREVIOUS NEXT

Note: 1. *Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark: △ have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Remarks
601	VEG1495	CYLINDER U.	
602	DFX25A7VWB	CAPSTAN U.	
603	VDG1284	DRIVE GEAR	
604	VDG1285	CENTER GEAR	
605	VDG1290	INTERFACE GEAR (C)	
606	VDG1291	INTERFACE GEAR (D)	
607	VDG1295	DECELERATION (A)	NV-EX1,NV-DS77
607	VDG1330	DECELERATION (A)	NV-DS99/990,NV-DS33,NV-EX3
608	VDG1296	DECELERATION (B)	NV-EX1,NV-DS77
608	VDG1331	DECELERATION (B)	NV-DS99/990,NV-DS33,NV-EX3
609	VDG1297	INTERFACE GEAR (A)	
610	VDG1303-A	INTERFACE GEAR (B)	
612	VMA9908	PULLEY COVER	
613	VMA9916	T4 GUIDE	
614	VMA9917	TENSION PLATE	
615	VMA0E52	GEAR COVER	
616	VHD1430	CAPSTAN HOLDER	NV-EX3
617	VMC1443	CYLINDER SPRING	
618	L6DA8DKC0001	LOADING MOTOR U.	NV-EX1,NV-DS77
619	VEM0679	LOADING MOTOR U.	NV-DS99/990,NV-DS33,NV-EX3
620	VWJ1297	MECHANISM INTERFACE FLEX.	NV-DS99/990,NV-DS33,NV-EX3
622	K0ZZ00000453	MODE SWITCH	
623	VXA6124	S LOAD GEAR U.	
624	VXA6125	T LOAD GEAR U.	

625	VXA6133	PULLEY COVER	
626	VXA6134	CHASSIS RADON U.	
627	VXA6135	CAM GEAR U.	
628	VXA6136	PINCH BEETLE	
629	VXA6137	RELEASE BEETLE	
630	VXA6138	RAIL U.	
631	VXA6169	BOAT RADON U.	
632	VXA6184	S3 BASE U.	
633	VXL2814	EJECT LEVER U.	
634	VXL2815	TENSION LEVER U.	
635	VXL2816	EJECT ARM U.	
636	VXL2897	PINCH ARM U.	
637	VXL2818	IDLER U.	
638	VYK8485	HEAD AMP U.	NV-EX1
638	VYK8244	HEAD AMP U.	NV-DS77
638	VYK8886	HEAD AMP U.	NV-DS99/990,NV-DS33
638	VYK9102	HEAD AMP U.	NV-EX3
621	VSC4802	SHIELD CASE	NV-EX1
621	VSC4758	SHIELD CASE	NV-DS77,NV-DS99/990,NV-DS33
639	VMA9926	CAPSTAN HOLDER	NV-EX1,NV-DS77,NV-DS99/990,NV-DS33
B601	VHD1155	SCREW	
B602	VHD1372	SCREW	
B603	VHD1372	SCREW	
B604	VHD1372	SCREW	
B606	VHD1160	SCREW	
B608	VHD1160	SCREW	
B609	VHD1406	SCREW	
B610	VHD1161	SCREW	
B611	VHD1161	SCREW	
B612	VHD1161	SCREW	
B613	VHD1161	SCREW	
B614	VHD1161	SCREW	

B615	VHD1162	SCREW	
B616	VHD1162	SCREW	
B619	VHD1163	SCREW	
B621	XQN12+B1	SCREW	
B622	XQN12+A1	SCREW	
B623	XQN12+A1	SCREW	
B624	XQN12+A1	SCREW	
B625	XQN12+A1	SCREW	
B626	XQN12+A1	SCREW	
B627	XQN12+A12FN	SCREW	
B628	XQN12+A12FN	SCREW	
B631	XQN12+B2	SCREW	
B632	VHD1162	SCREW	NV-EX1,NV-DS77,NV-DS99/990,NV-DS33
B633	VHD1162	SCREW	NV-EX1,NV-DS77,NV-DS99/990,NV-DS33
B634	XQN16+B12	SCREW	NV-EX1,NV-DS77,NV-DS99/990,NV-DS33
N601	VHN0324	NUT	
W601	VMX2028	WASHER	
W602	VMX2751	WASHER	
W603	VMX2752	WASHER	
W604	VMX2392	WASHER	
W605	VMX2028	WASHER	
W606	VMX2028	WASHER	
W607	VMX2028	WASHER	
W608	VMX2028	WASHER	
W609	VMX2028	WASHER	
W610	VMX2028	WASHER	
W611	VMX2028	WASHER	

TOP PREVIOUS NEXT

7.2 Q1& Q2 VCR MECHANISM SECTION (2) PARTS LIST

TOP PREVIOUS NEXT

Note: 1. *Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark: △ have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Remarks
651	VMD2975	LED HOLDER	
652	VXA6537	SUB SHASSIS U.	NV-DS99/990,NV-DS33,NV-EX3
652	VXA6146	SUB SHASSIS U.	NV-EX1,NV-DS77
653	VXA6151	COVER PLATE U.	
654	VXA6159	CASSETTE UP U.	
B651	VHD1162	SCREW	
B652	VHD1162	SCREW	
B653	VHD1162	SCREW	
B654	VHD1162	SCREW	
B655	VHD1207	SCREW	
B656	VHD1164	SCREW	
B657	VHD1164	SCREW	
B658	VHD1171	SCREW	
B659	VHD1314	SCREW	
B660	VHD1314	SCREW	
B661	VHD1163	SCREW	
B662	VHD1163	SCREW	

TOP PREVIOUS NEXT

7.3 Q3 VCR MECHANISM SECTION (1) PARTS LIST

TOP PREVIOUS NEXT

Note: 1. *Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark △ have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Remarks
501	VEG1570	CYLINDER U.	NV-EX21,NV-DS68/88/89/25/12/15/150,NV-MX2/8/300/1/3/5/7
501	VEG1495	CYLINDER U.	NV-DS35/55
502	DFX25A7VWC	CAPSTAN U.	NV-EX21,NV-DS68/88/89/25/12/15/150,NV-MX2/8/300/1/3/5/7
502	DFX25A7VWB	CAPSTAN U.	NV-DS35/55
503	VDG1284	DRIVE GEAR	
504	VDG1285	CENTER GEAR	
505	VDG1290	INTERFACE GEAR (C)	
506	VDG1291	INTERFACE GEAR (D)	
507	VDG1330	DECELERATION GEAR (A)	
508	VDG1331	DECELERATION GEAR (B)	
509	VDG1297	INTERFACE GEAR (A)	
510	VDG1303	INTERFACE GEAR (B)	
512	VMA9908	PULLEY COVER	
513	VMA9916	T4 GUIDE	
514	VMA9917	TENSION PLATE	
515	VMA0E52	GEAR COVER	
516	VHD1430	CAPSTAN HOLDER	
517	VMC1443	CYLINDER SPRING	
519	VEM0679	LOADING MOTOR U.	
520	VWJ1297	MECHANISM INTERFACE FLEX.	
521	VMP6271	RT FLEX. FRAME	NV-EX21,NV-DS68/88/89/25/12/15/150,NV-MX2/8/300/1/3/5/7
522	K0ZZ00000453	MODE SWITCH	
523	VXA6124	S LOAD GEAR U.	
524	VXA6125	T LOAD GEAR U.	

525	VXA6133	PULLEY	
526	VXA6134	CHASSIS RADON U.	
527	VXA6135	CAM GEAR U.	
528	VXA6136	PINCH BEETLE	
529	VXA6137	RELEASE BEETLE	
530	VXA6138	RAIL U.	
531	VXA6169	BOAT RADON U.	
532	VXA6184	S3 BASE U.	
533	VXL2814	EJECT LEVER U.	
534	VXL2815	TENSION LEVER U.	
535	VXL2816	EJECT ARM U.	
536	VXL2897	PINCH ARM U.	
537	VXL2818	IDLER U.	
538	VYK8886	HEAD AMP U.	NV-DS35/55
B501	VHD1155	SCREW	
B502	VHD1372	SCREW	
B503	VHD1372	SCREW	
B504	VHD1372	SCREW	
B505	XQN14+B1FN	SCREW	NV-EX21,NV-DS68/88/89/25/12/15/150,NV-MX2/8/300/1/3/5/7
B506	VHD1160	SCREW	
B508	VHD1160	SCREW	
B509	VHD1406	SCREW	
B510	VHD1161	SCREW	
B511	VHD1161	SCREW	
B512	VHD1161	SCREW	
B513	VHD1161	SCREW	
B514	VHD1161	SCREW	
B515	VHD1162	SCREW	
B516	VHD1162	SCREW	
B519	VHD1163	SCREW	
B521	XQN12+B1	SCREW	
B522	XQN12+A1	SCREW	

B523	XQN12+A1	SCREW	
B524	XQN12+A1	SCREW	
B525	XQN12+A1	SCREW	
B526	XQN12+A1	SCREW	
B527	XQN12+A12FN	SCREW	
B528	XQN12+A12FN	SCREW	
B530	XQN16+B2	SCREW	
B535	XQN16+B3	SCREW	NV-DS35/55
N501	VHN0324	NUT	
W501	VMX2028	WASHER	
W502	VMX2028	WASHER	
W503	VMX2028	WASHER	
W504	VMX2028	WASHER	
W505	VMX2028	WASHER	
W506	VMX2028	WASHER	
W507	VMX2028	WASHER	
W508	VMX2751	WASHER	
W509	VMX2752	WASHER	
W510	VMX2392	WASHER	
W511	VMX2028	WASHER	

TOP PREVIOUS NEXT

7.4 Q3 VCR MECHANISM SECTION (2) PARTS LIST

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Note: 1. *Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark △ have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Remarks
551	VMD2975	LED HOLDER	
552	VXA6537	SUB CHASSIS U.	
553	VXA6151	COVER PLATE U.	
554	VXA6159	CASSETTE UP U.	
B551	VHD1162	SCREW	
B552	VHD1162	SCREW	
B553	VHD1162	SCREW	
B554	VHD1162	SCREW	
B555	VHD1207	SCREW	
B556	VHD1164	SCREW	
B557	VHD1164	SCREW	
B558	VHD1171	SCREW	
B559	VHD1314	SCREW	
B560	VHD1314	SCREW	
B561	VHD1163	SCREW	
B562	VHD1163	SCREW	

TOP PREVIOUS